

Introduction

HEART OF WETNESS

Living, narrating, and representing ancient memories and new
water rhythms in the Venetian Lagoon

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ABSTRACT: The natural and human ensemble of Venice and its lagoon, with its peculiar island features, is among one of the most studied urban and environmental systems in the world. This introduction to *Shima's* special issue on Venice and its lagoon provides a brief historical and environmental context to this space and a possible platform whereby the local complexity and liminality of wetlands, lagoons and islands gesture to and evoke global themes, conceptual views, and transdisciplinary opportunities. Focusing on key topics like the theatricality of water engineering, the understanding of water rhythms and the recovery of water memories, we introduce the articles presented herein, providing a geo-historical framework for the various interpretations of living, narrating and representing Venice and its lagoon.

KEYWORDS: Venice, lagoon, small islands, wetlands, aquapelago

Coastal wetlands, lagoons and the islands and shorelines within and around them have long been regarded as threshold spaces where earth, sky and water meet in dynamic states of materiality. The essential liminality of these spaces extends well beyond environmental contexts and involves human and non-human interactions and continuously changing lived spaces. Several academic traditions have considered islands, archipelagos, lagoons and other coastal wetlands as specific subjects of research. These spaces have often been conceived as territorial laboratories with well-defined personalities or as synecdoches of wider spaces and dynamics. Today such geographical features are increasingly understood as cultural and

social aquapelagos¹ – an assemblage that exists in a state of creative flux, rewriting and overlaying past experiences to affirm, erode and create new relationships between places and people, and involving a number of contemporary globalised issues.

This special issue deals with the island city of Venice and its Lagoon: an archetypal space for the connections between a fragile environment and human adaptations to it. The urban ecosystem of Venice and its Lagoon, with its peculiar island features, is among one of the most studied urban and environmental systems in the world. If the interface between water and land is conventionally realised within the island city and in the islands scattered in the Lagoon, we recognise that the river and canal network surrounding and flowing into the Lagoon is also a complex and contested space, dynamically shaping and reflecting how we live with water. Furthermore, these complex water systems play a pivotal role in personal memories, idealisation, and the imaginary, as well as in everyday practices, experiences and biographies of both inhabitants and visitors. This repertoire is continually (re)created, (re)told, (re)represented and manifests itself in negotiations and frictions in everyday life and localised actions. To appreciate the multiplicity of meanings and knowledge production drawn from these spaces, we need to comprehend not only politics and grand narratives but also personal memories, reflections, local traditions and vernacular practices (Vallerani and Visentin, 2018: 247-248).

Venice and its Lagoon are an aquapelago where humans connect with the amphibious landscape, in a balancing act between the *longue durée* of geomorphologic patterns and the evolution of societies, which become increasingly fast and uncertain in times of intensified socio-economic globalisation and anthropogenic environmental change. Venice and its Lagoon are also the cue for a layering of iconographies (expressed in paintings, maps and pictures) and cultural representations (Rossetto, 2009) which, in turn, shape their geographies. If modernity marginalised the water spaces, the relationship between Venetians and the Lagoon still persists, to the point that many conflicts today perceive water spaces, and their possible uses, as principal contested ground, while boats or small islands can become metonymic of the dispute itself (Cavallo, 2016). Already in the 1970s, Gabriele Zanetto and Fabio Lando (1978) observed that the tight relationship that made every Venetian a “lagoon person” was in crisis; nevertheless, in the 1990s, Zanetto himself reaffirmed that the cultural roots that were grounded in the Lagoon as lived space somehow involved all Venetians and led them to think of the Lagoon in terms of a small world whose signs they could interpret (Zanetto, 1992). With the new century, Venice and its Lagoon had to deal with other problems, increasingly difficult to solve and manage, that highlighted how some economic models of development were drifting from (apparent) opportunities into (concrete) problems.

¹ See *Shima's* online Aquapelago anthology (nd) for a compilation of articles that contribute to the development of the concept of the aquapelago.

In 2021, this special issue deals with the forms of living, narrating and representing such aquapelagic spaces, between the ancient memories of traditions, oral history and folklore and the new water rhythms of mediatic images, tourism, technocracy, social movements and the claims of inhabitants. It also includes the challenges related to the effects of anthropogenic climate change, flood events and ecosystem fragility and highlights how wetlands, lagoons and islands are crucial in (re)creating the various social and cultural relations between humans (Gandy, 2014; Krause and Strang, 2016; Neimanis, 2017). As living conditions and environments of both humans and non-humans are rapidly changing, we need to think of the Anthropocene not only as a geological epoch, but also, and primarily, as an enormous challenge. One of the challenges it presents us is to find new ways to re-interpret our relationships with water in aquapelagos. Venice, with the eyes of the world upon it, seems a good starting point.

Geo-historical framework: a brief introduction

The unique and long-lasting symbiotic coexistence of Venice's urban materiality with the amphibious mosaic of wetlands and lagoons surrounding it, shows us a perennial dynamism affecting geomorphological processes. The Lagoon is a socio-natural hybrid, the result of environmental processes involving a variety of human and non-human agencies. The whole wetland can be seen as a kind of humid and protective cradle. Such uncertain hydraulic features were the ideal setting to stimulate a particular process of domestication of the watery environments, whose effectual practicalities have been paralleled since early Roman times by an influential mythological narration. As in many island cultures throughout the world, a specific watery cosmogony was elaborated, grounding the narrative in the prestigious heritage of classical mythology. Watery mythologies that developed along the Mediterranean shorelines were transformed into the Greek and Latin literary traditions of Homer, Virgil and Livy, the northern Adriatic narrowly interacting with the inland territories.

It is worth mentioning a special imaginative relationship that exists between the Venetian Lagoon and the Euganean Hills. This detached group of hills juts up from the land unexpectedly, its rough profile penetrating the westward horizon. From the Lagoon archipelago to the west, the silhouette of the Euganean Hills appears in the distance and seems to emerge like an island from the stretch of Lagoon towards its brackish border further inland. The tenuous strata of the reclaimed lower plains occupying the first *terra firma*, mostly lying below sea level, increase the illusory effect of a lagoon that extends beyond sight, with the water deceptively embracing the hills. This is not only the image of a fictitious insularity, but also the mirage of a landing place, which probably attracted both the first Greek and Trojan sailors, thereby fuelling the mythical geography of founding heroes. This is the case of Antenor who put an end to his marine odyssey, gazing from the open sea onto the reassuring outline of the hills, a landmark for the subsequent ascending navigation along one of the tributaries of Medoacus (now the river Brenta), until permanently mooring at the site later to be known as Patavium (today's Padua).

Since the period of Romanisation and the maritime interests of the Byzantines along the north Adriatic shoreline, coastal wetlands and islands have been the foci of activity for people. They have been valuable areas for resource acquisition (fishing, hunting, gathering of shellfish, sea salt and seaweed harvesting) and as settlement areas to control maritime trade. It follows that from a geo-historical point of view these spaces often include physical and cultural remains and intangible memories that merit investigation and that should inform territorial planning. Since the Middle Ages, the control and management of the numerous rivers originating from the Alps and flowing towards the Northern Adriatic coast have been among the most significant human activities aimed at transforming the natural environment. In addition to their manifold functions, canals and rivers were liquid flows of high strategic value especially when interacting with coastal outlets. Within lowland morphologies, where alluvial processes are responsible for the evolution of geologically fast waterscapes, fluvial sediments allow the distribution of enormous quantities of sediment, thus giving rise to coastal strips and lagoons, due to the accumulation of material subsequently dispersed by the sea with its tidal currents. It follows that the Venetian Lagoon is part of the remarkable succession of wetlands stretching from Ravenna, the former western Byzantine capital, to the northeast where the Adriatic Sea ends, washing up against the karst cliffs a few miles before Trieste (Turri, Caniato and Zanetti, 1995).

The physical expansion of Venice as a city on water has been sustained by and related to theoretical and symbolic discourses concerning the specificity of local environmental policies. In this respect, the careful interventions on the fragile context of transactional waterscapes have, until recently, shown us how to properly manage the elemental world, in this case earth and water and, also, how to create celebrative representations. As it happens, we find ourselves finishing this Introduction in almost perfect timing with the symbolic date of the foundation of Venice: 25th March, the Feast of the Annunciation, of the year 421, as reported in medieval sources like the 11th Century *Chronicon Altinate* and the 13th Century chronicle by Martino da Canal. Despite having no historical evidence (Dorigo, 1983; Ravegnani, 2020), this date is being relaunched today as a foundational myth by the institutions that are about to celebrate “the 1600 years of Venice”. Something similar happened with the cultural construction of a specific urban mythology, mainly based on the possession of the body of Saint Mark the Evangelist, whose symbol, the Lion, became the basis of the city’s iconography. In relation to this, Philip Hayward’s article² explores Venice’s ‘aquapelagic imaginary’ taking into consideration a variety of motifs and iconographies in visual and narrative culture from the Renaissance to the present, including *sirene* (mermaids), sea serpents, and Neptune. In particular, the Lion of Saint Mark *in moeca* (the Venetian word for a lagoon crab turning soft during the carapace moult period) represents an attempt to cross/associate water and land: in short, the Lagoon environment, a transition place where the terrestrial and maritime are in continuous interaction without fixed borders or limits.

² Please note that the order in which this issue’s contribution are mentioned here follows the train of thought of this introduction and does not retrace the order of appearance in the issue.

As for the geomorphological context, its indisputable fragility is due to the precarious balance between riverine and marine forces. Despite the uneasy coexistence with shallow waters and marshes, Venetian water control policy was successful to the extent that such an amphibious location fostered the powerful mythology of Venice as the 'Queen of the Sea'. This geographical myth was actually related to the position of the Lagoon city, at the crossroads of Europe and Asia and surrounded by a large wetland protecting it from military attacks.

The evolution of this built townscape is one of the most fascinating chapters of socio-environmental history. The history begins with a huge number of handwritten documents and maps, afterwards integrated into printed reports, water engineering treatises, technical journals as well as copious publications ranging from travel diaries to novels to travel guides, and a growing circulation of images, amplified today by mass media and social media. A journey through such an immense visual heritage is the object of Tania Rossetto's article. She traverses the vast range of the 'mappy' imageries of Venice taking into consideration different registers and genres over time, looking at both the recipients and producers of this material. Rossetto underlines how cartographic representations of, and rhetoric about, Venice and its Lagoon are carried out by different actors, thus contributing to a process of continuous re-figuration and de/re-centralisation of this water/land-scape. Alongside this abundance of documentary and cartographic memories there is the equally substantial environmental heritage made up of multifaceted hydrographic typologies tied to a raft of artefacts that help to recount the age-old familiarity of people with Venetian waterscapes.

The theatricality of water engineering and the volatility of change

An international conference entitled 'Living, narrating, representing Venice and its Lagoon' was to have been held at the Ca' Foscari Palace in May 2020. The purpose of the conference was to discuss and examine the confluence of waterscapes in Venice in narratives, politics, culture, art and everyday lives and practices. Our aims were to collect possible and innovative interdisciplinary approaches in order to face up to and discuss the challenges of the Anthropocene epoch: climate change, loss of biodiversity, drastic reduction of fish stocks and fishing activity, cultural and social changes, management of mass tourism and watery cultural heritage recovery and protection. When the COVID-19 pandemic hit Italy in February 2020, we were forced to cancel the conference, but we were still able to gather the contributions together in this special issue of *Shima*. As for the city, a deserted Venice offered unprecedented glimpses of life, while the Lagoon, with the halting of motor navigation and artificial waves, revealed its ancient nature, made up of transparencies, reflections, birds and fishes, even in the city centre's canals. In the abrupt alternation between the hectic movement of mass tourism and the suspension of all mobility, the now few Venetians were confronted with all the contradictions of a city that resists homologation (Salomon, 2004), lying in its water cradle.

Therefore, in May 2020, instead of hosting our conference, Ca' Foscari Palace, headquarters of Venice University, was silent and almost empty. A strange phenomenon as normally Venetian academics and scholars would meet in this monumental building at the heart of historical Venice. The Ca' Foscari Palace is located where the Grand Canal waterway changes direction with a gentle bend to the southwest, starting its final reach towards Saint Mark's Square. When working there, administrative staff and professors enjoy the magnificence of the rooms with amazing views over the Grand Canal. The gorgeous solidity of this palace, with its architectural complexity, where manifold historical layers have been added over the centuries, with its elaborate external façade, is nothing but the final step of a complex process, epitomising the most successful cultural transformation of a wetland. Such a site prevents us from being fully aware of the extent of wetness surrounding the watery urban structure of Venice and constitutes an emblematic point of encounter of two different approaches to the amphibious landscape; on the one hand, we can appreciate the natural curve of the Grand Canal, which, despite being so constructed, still follows the trend of a paleo meander. On the other hand, not far from Ca' Foscari palace, we can recognise a sort of cut in the urban fabric: indeed, the possibility to quickly reach Ca' Foscari on the Grand Canal by water (and from there the Rialto Bridge and Saint Mark's Square) was created by the excavation in 1931 of a new straight canal (Rio Novo), and by its junction with the former existing Rio de Ca' Foscari.

Very few visitors are conscious of the intimate connection of Venice with its Lagoon. Those occupying a window seat when landing at and taking off from Marco Polo airport can see the perfection of the city's lagoon environment, with its delicate balance between land and water. But this is just a short-lived moment, an ephemeral perception that does not bring any conscious improvement to the capacity to understand the lagoon territoriality surrounding Venice.

The geomorphological evolution of the Lagoon into an astonishing urban environment is the recognisable wonder that nurtures powerful representations among both local people and visitors. The development of a complex urban archipelagic system within a wetland came about through a continuous succession of interventions. Physical survival was a frequent impetus to improve knowledge of the most basic dynamics of water. Cultural geographer Denis Cosgrove's fundamental research on the theoretical and speculative discourses with which the Lagoon's environmental policies were intimately woven is worth mentioning here. Since the Middle Ages, the main goal of technicians involved in the conservation of Venice's Lagoon was to control two opposing actions: siltation processes coming from the rivers flowing into the Lagoon and erosion activated by the Adriatic surges (Cosgrove 1993; 1998).

If Venice is an amphibious city laying in a fragile environment, whose features come from domesticating the hydrosphere, special attention needs to be paid to the fast-changing dynamics of the delicate interface between land and water to adequately manage this unique waterscape. Venice's watery location plays a meaningful role in the appreciation of its uniqueness. Such insular urbanity demonstrates how, starting from hydrological discoveries

in the early Middle Ages, formerly brackish environments have been mastered. Coexisting within a wetland, especially when focusing on very basic problems related to needs ranging from small island drainage to mud bank maintenance, from canal dredging to fresh water supply (a city surrounded by brackish water, without fresh water) was not easy. It follows that the successful governance of local hydrography was the most strategic goal of early Venetian policies.

The complex relationship between Venice and its surrounding waterscape entailed many technical strategies to form an effectual social, economic and cultural amphibious territoriality. Within the idea of waterscape and where it is possible to identify specific and unique environmental heritage, special heed has to be paid to canals and rivers flowing into the Venetian Lagoon as linear paths of high cultural value. The fragility of the wetlands encircling Venice was seriously endangered by the volumes of fluvial runoff entering the Lagoon. Major rivers like the Brenta and the Piave carried large sediment loads when flowing into the Lagoon, enhancing the risk of changing it into a backwater environment. The threat to the integrity of Venetian aquatic protection was too high so the natural evolution of the coastal wetlands was largely modified by local water engineers who adopted high impact strategies. The most successful intervention was to redirect the two abovementioned rivers away from the Lagoon, allowing them to enter the sea directly.

Venetian water engineering aimed to manage the different effects of opposing hydrological dynamics. Sedimentation and erosion processes thereby entail the basic concept of separation. If, on the one hand, the action of separating water from land, like in drainage schemes, is the empirical assumption coming from direct observation of waterscape dynamics, on the other it recalls the foundational tenets of the philosophy of nature, especially when referring to Empedocles' four elements that make up all the structures in the world. In the case of the Venetian Lagoon's wet territoriality, two out of four elements are involved: water and land. An effectual separation of their struggling and dangerous coexistence is the main goal to achieve. A clear and safe separation of the two elements is the permanent challenge affecting social and economic prosperity in an intertidal and brackish environment. That is until very recently, when in November 2019, a devastating flood inundated the whole city centre and most of the lagoon islands.

It follows that the Venetian Lagoon, since the early spread of permanent settlements, has become a special theatre of multifaceted practical performances. All of them are the result of different levels of competencies of local actors, ranging from the illiterate and poor fishermen living in isolated reed huts (*casoni*) to the trained technicians appointed by the Venetian ministries to control all waters entering and within the Lagoon. Unlike today, common people living very close to riverbanks or on the tiny mud islands were once deemed precious consultants to be interviewed. For centuries, government cartographers and technicians (or hydraulic engineers), constantly visited Lagoon islands, canals, riverbanks, and irrigation and drainage ditches. During these inspections, they recognised the helpful contributions of local people, subsequently mentioning them in their reports and maps. Alongside this abundance of documentation and reports there is also an ensemble of

artefacts expressing the age-old familiarity of Venetians with their surrounding waterscapes, and including riverbanks, bridges, water pumps, locks, drainage ditches, fluvial harbours, watermills and riverside villas; all aspects of the historical and cultural identity of the lower plains. All of these establish specific landscape scenes, like a theatre set, where water engineering shows its visible role as a fundamental territorial performance.

Since the end of the 19th Century, within the national project of the modernisation of the new Italian State, a notable redefinition of Lagoon functionality has been carefully set up. The persistence of wetlands along the Adriatic shoreline was seen as a sign of undisputed territorial backwardness, where local actors were still playing the unacceptable role of outdated social relics, good only for the emerging appetite for the picturesque. Such anti-modern wetness, especially that surrounding Venice, very soon became the empty theatre to be filled with the dramatic efficiency of water engineering, notably aimed at flood protection and land reclamation issues. In the new sensibility, water and islandness became obstacles rather than characteristics, while the uniqueness of Venice was perceived more and more like an inconvenient impediment to faster connections and advanced urban lifestyle. A key moment in this regard, symbolically and factually speaking, was the building of the railway bridge linking Venice with the mainland in 1846: a de-insularisation act that began to crack the centuries-old relationship between the city and water. The construction of the bridge that would unify and hold the *terraferma* (mainland) to 'insular Venice' was also one of the main concerns of John Ruskin in his battle for the aesthetic and environmental integrity of the maritime city, attacked by the 'progress of modernity'. In his article, William Bainbridge deals with the legacy of Ruskin's iconic works, in particular in *The Stones of Venice*, critically analysing the contribution of Joseph and Elizabeth Pennell to a new form of representation of the city at the turn of the 20th Century focusing on forgotten angles of everyday Venice away from the glamorous canals.

The Fascist period saw the Venetian Lagoon with its wide surrounding backwaters go through large interventions, including building modern structures like the new port and the industrial site at Marghera, the reclamation of large sections of the low plain, and the management of rivers and canals to improve inland navigation. The renewed prospects of the Venetian port became an object of praise: the port was not only open to global trade but also invigorated by a great production centre that was well-connected to a flat hinterland. Located a short distance from the steep Prealps, offering plentiful supplies of running water that could be transformed into abundant electric power, the surrounding territory was also connected to many coastal canals and various rivers that, though not very large or deep, flow for many miles through rich and industrial regions. Nowadays the post-industrial transition of the Venice industrial port, is nourished by a difficult political and economic synthesis between global dynamics and territorial factors, on local and regional scales (Soriani and Calzavara, 2016) and, therefore, appears suspended between still productive industrial activities, a risky and polluted no man's land, and mirages of regeneration of the waterfront.

Understanding (or not) water rhythms

Not unlike most transformed wet environments, the peculiarity of the Venetian Lagoon is due to its pristine and pre-urban heritage, made up of biological, hydrological and geomorphological dynamics. Such persistence is stunningly visible following the dendritic patterns of the natural networks of the minor canals that form a dense texture of micro meanders that crosses salt marshes and tidal flats. This network of creeks and channels are regularly submerged during daily tidal cycles and, until recently, it has been the most efficient ecological service in terms of dissipating incoming waves and tidal energy by friction.

In all wetlands worldwide, the understanding of tidal ebb and flow is that water circulation is essential to a lagoon's metabolism. Similar dynamics are easily detectable everywhere where coastal marshlands interact with inland watershed and open sea, exchanging sediments and kinetic energy. Both wetlands and pouring tributaries are affected by a pulsing dynamic closely related to the movements of discharge (sediment and nutrients) during low tide and of redistribution and rejuvenation at high tide. Such alternate rising and falling of the level of the lagoon can be perceived as a rhythm or a breath, that is a regular, repeated pattern of movement. The natural rhythm of liquid flows allows the renewal of secluded extensions of brackish waters. Thanks to these basic environmental observations, the inhabitants of early Venice developed more and more detailed knowledge, taking into account that lagoon rhythms can be the realm of both temporary opportunities and temporary risks. Since then, before adopting and adapting to the rhythm of lagoon waters, amphibious societies like Venice, need to improve their knowledge and interpretation of this natural regularity. Such rhythmic dynamics not only entail and encourage effectual adaptations but are also elemental driving forces capable of modelling adequate biodiversity and the peculiar cultural diversities of amphibious communities.

When referring to the socio-hydraulic richness in the Venetian Lagoon, the rhythm of the waters is the essential condition of nature's creativity. Its regular occurrence gradually reinforces human knowledge about water management. And, after the continuous care and technical competencies developed during the Venice Republic, Lagoon management became the main goal in the following process of modernisation.

In the first decade of the 20th Century, Venice's wetness was at the heart of the argument raised by Futurist rhetoric. The 1910 leaflet written by Filippo Tommaso Marinetti, of which thousands of copies were dropped into St. Mark's Square from the Clock Tower, is well known. This leaflet expressed the wish to transform the traditional land-water relationship into a new one: "We repudiate ancient Venice...!" cried the Italian Futurists. To this noisy and revolutionary band of artists and poets, the decrepit Old Lady of the Adriatic represented everything they wanted to destroy. They were definitively against the natural context of the wetland, rejecting the adaptive strategies of coexistence with the pulsating character of the Lagoon:

We wish to prepare for the birth of an industrial and military Venice which can dominate the Adriatic, this great Italian lake. We rush to fill in its stinking little canals, with the rubble of its crumbling and pockmarked palaces. (Marinetti, 1968: 45)

Despite these aggressive and upsetting proposals, Marinetti's idea to asphalt the Grand Canal was not implemented and Venice's amphibious heritage was saved. Nevertheless, some interventions were achieved, such as the construction of the aforementioned new industrial port, with huge shipyards and petrochemical plants located in a wide reclaimed marshland close to Marghera. They also doubled the size of the bridge connecting the historical city centre with the mainland through the construction of the road bridge ending in Piazzale Roma, beside the existing railway bridge. Further significant results were achieved during the post-World War I decades after the successful overall water regulation of the Venetian inland. The amelioration and control of the fluvial network, both in mountainous and plains areas, was often defined as a "struggle against Nature" (Soriani, Vallerani and Zanetto, 1996). In this way, a wetland can be transformed into a modern structure when its natural features are altered and modified by technical improvement. This is the case of the excavation of new canals or the broadening of the old ones, thus altering the previous mastery to manage waterways flowing in both the Venice mainland and Lagoon. The reclamation of wetlands indicates an inability to understand the natural rhythm of backwaters, fixing the borders between water and land mass once and for all and artificialising the hydrography into an asset that is not very resilient. In fact, all of this does not acknowledge that the ecological efficiency of lagoons depends very much on the natural functioning of the whole hydro-system, ranging from the upstream catchment to the coastline affected by marine action.

This ferocious turn to modernity is not over. Nowadays, the MOSE dike system is proposing the same sort of ordering and technocratic vision, one based on the control of water through engineering. This engineering approach breaks the natural, mutable, equilibrium typical of the wetlands. This technocratic vision is at the centre of Rita Vianello's article based on anthropological research that involved the perspectives and interpretations of fishers and other inhabitants of the Lagoon. She discusses the lack of ethical, affective and environmental considerations throughout the history of the MOSE project, presenting the conflictual perception and reception of this mega-project and the distance between local and technical knowledge. These aspects are addressed from a different angle by Monica Porzionato, who applies Assemblage Theory (DeLanda, 2016; 2019) as well as the concept of the aquapelago (Hayward, 2012a, 2012b) to Venice's historical relationship with its watery world. Analysing the two main alterations of the ecosystem of the Lagoon, the diversion of the main rivers in the 16th-17th centuries and the construction of the MOSE system in the 21st Century, she observes relevant differences in the cultural, social and technological contexts. If in the 16th Century Venetian transformations of nature had deep moral implications (Cosgrove, 1993), today it would be desirable and appropriate to rethink the way in which technology and nature can work more fairly towards the maintenance of an equilibrium.

The recovery of water memories

Recorded in detail by handwritten documents conserved in archives and evidenced by the many and various manmade structures scattered along the canal waterfronts, the effective evolution of the Lagoon can provide additional information to supplement the stories of those who have long experienced changing Venetian waterscapes. Thanks to the spread of researching water memories through fieldwork and with the aid of methodologies from historical geography and cultural anthropology, increasing knowledge is helping to detect the traces left by centuries of land and water coevolution throughout the intricate network of natural and manmade features inside the Lagoon. Special attention has been paid to the analysis of environmental frameworks that have witnessed the evolution of traditional ways of life in more marginal Lagoon areas.

It is well known that Northern Adriatic coastal wetlands and lagoons represent a unique repository of the specific water civilisations that developed a pre-modern way of living. Today such coastal environments contain an outstanding hydraulic heritage, both tangible and intangible, made of artefacts, techniques, and oral knowledge passed down from generation to generation. Every single waterfront has a specific local history, and there are often aspects that are easy to identify as being different from other waterfronts, such as the geo-historical evolution, the geographical location, or geomorphological features.

The hydrological spatiality of Venice's Lagoon is undoubtedly a fragile ecosystem, whose vulnerability is worsened by industrial growth, the demand for cheap land near coastline estuaries or deltas and, more recently, by the increasing impacts of sea level rise. Unfortunately, the Venetian Lagoon is not unfamiliar with these troublesome issues. The most noteworthy menaces to the unicity of the Venetian UNESCO World Heritage site include growing water pollution and consumption, the misuse of the Lagoon due to engineering interventions to prevent high tides, and the alarming effects of mass tourism, further enhanced by the risky transit of large cruise ships. Such threats are exacerbated by the noticeable spread of both urban sprawl and the intensification of agribusiness that is affecting the low plain surrounding the inland borders of the Lagoon. This is leading to an irreversible loss of the main support underpinning the basic eco-system, with special regard to the dynamics of the hydro-geological system. The ruinous flood of November 2019 appears to be a traumatic turning point, when the rhythmic regularity of the Lagoon waters tragically changed for weeks, thereby enhancing a shared awareness among inhabitants about the evidence of climate change combined with the effects of subsidence. This local event became a worldwide alarm, thus transforming the temporary submersion of Venice and its Lagoon into a powerful icon of the disturbing effects of global warming. In his article, Ilan Kelman explores Venice's flood disaster risk personality through a conceptual examination of key, linked themes, including the aquapelago, risk transference, and submergence. Venice's character and appeal are sometimes constructed and construed not just through water, but also through the role flood management plays, in particular in all the attempts to avoid floods made throughout its history. He examines the water-land links and separations of the Venetian Lagoon analysing the long history and tradition of Venice's

flood disaster risk personality, underscoring the role and importance of non-structural approaches.

In this abrupt hydrological evolution, the recovery of Venetian water memories encompasses a much wider effort to cooperate with the urgent goals of lagoon waterscape management. The interaction of the 'environmental humanities' aims at focusing on the role of Venice's wetlands as an innovative opportunity to rethink both water engineering and the ecosystems services approach, providing special insight on the intersections of cultural and ecological functions. The peculiar repertory of the traditional flat-bottomed boats of the Venetian Lagoon may be considered not only a floating heritage, but also a practical action of cultural resistance, reinforcing the urgent need to mitigate the crashing waves due to the numerous motorboats intruding with destructive speed into the fragile network of the island city's historical canals. Wooden boats also express a special aesthetic of mobility, perfectly in tune with the need to improve different tourism strategies, paying more attention to the principles of social and environmental sustainability.

The embodied engagement with the city is also well represented by its pedestrian distinctiveness. The urban morphology of Venice today was reformed in the 19th Century when an attempt was made to provide the city with a unitary network of pedestrian paths, connecting the various sections (*insulae*). It is quite easy to individuate this pedestrian 'reform' looking at the name of the *calli* (streets): a lot of them are called *rio terà* (meaning 'buried canal' - Foscari, 1969). Where there was water, there is now a walkable path. The duplicity of Venice can also be found at this point: it is a city in the middle of the Lagoon, but many ordinary journeys take place on foot. On the other hand, as mentioned above, going back to the water through the recovery of old-style sailing and Venetian-style rowing (*voga alla veneta*) takes on a new meaning and becomes a form of civic resistance. Practices of resistance and struggle for the right to a city – in Lefebvrian terms (1968) – making it more liveable for everyone (and not only enjoyable for tourists) are at the core of more than one contribution in the issue. On an urban scale, Cornelia Dlabaja examines how Venetians are reclaiming their right to the island city as a common good for its inhabitants, relating this directly to how the city is cared for. Such forms of 'caring for the island city' are a concrete response to the reshaping of the spaces and everyday lives of Venetian residents due to mass tourism. Alexander Araya Lopez's article focuses on Saint Mark's Square, a heritage site and iconic touristic space but also a contested political space. This time, the Lefebvrian notion of right to the city (*ibid*) is applied to the discouraging of social and political uses of the square, including the protest by the collective No Grandi Navi and artists' performances, since the authorities and tourism stakeholders intend it to be an unperturbed space of leisure and tourist consumption.

Indeed, Venice and its Lagoon has become one of the most emblematic cases of tourism overcrowding affecting a historic city, where problems related to its impacts are obvious. There is ample evidence that mass tourism has taken over the historical city of Venice (Van der Borg, Costa and Gotti, 1996; Bertocchi and Visentin, 2019), with all the corollary of the impacts of a global destination, while lesser-known destinations within the Lagoon often do

not fulfil their potential and capacities. Fundamentally, however, there must be a strategy and a vision that recognises the social and environmental aspects of the Lagoon, since, as Bertocchi and Ferri (2021) underline in their article about Murano Island, the risk is that predatory and touristic modes, consolidated in the city centre, are re-proposed on a smaller scale in the outer islands of the Lagoon. Murano Island, the island of glass, is incidentally the most visited island outside the historic city centre.

The recovery and adequate communication of Lagoon cultural heritage could foster change and awareness. The reuse of traditional boating could be the first step in changing the travelling habits of tourists. Such experiential practice could shift those tourists, who are usually stationed in one destination for a longer period of time, towards more traditional mobility and experiencing more traditional places. So far very few common initiatives have been planned for the creation of tourism products based on cultural and natural heritage in the Venetian Lagoon. Narratives of Venice's nautical heritage emanate the current reinforcement of new shared perceptions that appreciate the whole character of the Lagoon with its fascinating traces of unique tangible heritage. This requires the attention of local communities to avoid dispersing the precious memory of a secular and fruitful relationship between humans and the Lagoon waterfronts: old docks, *squeri* (boat building and repair yards), traditional fisheries, rowing and sailing clubs, abandoned small islands, as in the case of Poveglia, where the launch of a 99-year lease by the Italian State Property Office was blocked by the reaction of some citizens and led to the formation of the association Poveglia per Tutti (Poveglia for Everyone). Federica Cavallo and Francesco Visentin analyse the process, often concerning the small islands of the Venetian Lagoon, that leads from abandonment to privatisation and tourism-related use. In their analysis, Poveglia becomes the theatre of resistance to the monoculture of tourism by a group of active citizens. At the same time, Poveglia is a place where meanings, imaginaries, forces and glocal dynamics 'condense', as often happens in islands.

Moreover, the whole Venetian aquapelago can be considered as a unique place on which the world's eyes are focused: a desired mirage, a benchmark, a *laboratoire*, a model to strive for or an example not to be followed. That's why different forms of comparison or contamination between Venice and other aquapelagos or water cities have been addressed by some contributors to this special issue. Bringing together research and site-specific environmental performances, May Joseph and Sofia Varino propose a comparative lagoon aesthetic that links the Venetian Lagoon and the extended archipelagic region of the Laccadive Sea of India. Their contemporary archipelagic study connecting these two regions looks back to the 19th Century Venetian Fra Mauro's *Mappa Mundi*, where the archipelagos of the Laccadive Sea region were deemed of cartographic prominence, and links it with the era of climate change, when Venice's Lagoon culture and its history of *acqua alta* mirror the Laccadive Sea as a lagoon around which an extended archipelagic imaginary contends with rising oceans.

As for Nina Balan and Bridget Bordelon, they examine the similarities and differences between New Orleans and Venice, as coastal tourist cities built on river sediment and that

are extremely vulnerable to rising sea levels and climate change effects. Their article aims to illustrate how adaptation and mitigation policies (or lack thereof) have evolved in these two international cities and which mitigation strategies are followed in the two cases to minimise negative impacts of sea level rise and risks of overtourism. Cristiana Zara reflects on the recurring ‘sense of Venice’ emerging, both visually and materially, from Western travel narratives and landscape representations of the Indian sacred city of Varanasi. Drawing on postcolonial, representational and non-representational theories, her article explores aesthetic experiences of Venice as a threshold that enables Western travellers to reframe the unfamiliar Oriental landscape of Varanasi within recognisable aesthetic sensibilities. In this way, the author reveals “the capacity of Venice to exist beyond Venice”, mobilising aesthetic and affectual connections to other landscapes and linking socio-material contexts and spatio-temporal experiences that are far apart. The universality of Venice turns it into an archetype circulating through time and space, as testified by the many ‘little Venices’ spread all over the world: that is why talking about Venice means talking about our entire aquapelagic common home.

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