

LAGOON WANDERINGS

Boat hydro-perspectivism in the aquapelagic assemblage of the Venetian Lagoon

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Petra Codato

University of Hull <P.CODATO-2022@hull.ac.uk>

ABSTRACT: In this article I conduct the reader along a journey that follows different waterways within the Venetian lagoon and provides insights into the water-land interactions of this unique aquapelagic assemblage. Leveraging the methodological tool of hydro-perspectivism, I situate the analytical standpoint within two very different kinds of boat: the *vaporetto* (a local waterbus) and the kayak. The first, native to the lagoon, gives voice to a sample of the massive population of tourists that constantly crowds the lagoon's islands and waters. Navigating the congested waterways leading from the Lido littoral to Venice's historical centre, I raise issues such as over-tourism, water quality, and wave motion. Shifting the perspective to the kayak, a type of boat that originates in Inuit culture and is perfectly suited to the lagoon's shallow waters, the article then investigates the potentialities of analysing from the water's edge, considering other serious problems of the Venetian aquapelago, such as pollution and hydro-morphological alterations. In conclusion, I argue that by conceiving the boat as not only as a means of transport but also as a means of acquiring and formulating knowledge, it is possible to revitalise hydrophilic feelings and thus the precious aquapelagic identity of Venice's lagoon that has been in decline over the last century.

KEYWORDS: Venetian Lagoon, waterways, aquapelagic assemblage, hydro-perspectivism, boats.

The term 'waterway' is often understood to refer to rivers or canals around and along which communities have established senses of place over extended durations (Vallerani & Visentin, 2018). Venice exemplifies these aspects, being a city that, in the collective imaginary, emerged from the waters as if by magic, with the prosperous facades of its opulent palaces overlooking narrower and larger canals. This network of canals has constituted the main connective tissue within the island city for centuries. Water doors (*porte d'acqua*) allowed the nobility to leave their homes on their private boats and enter other dwellings without taking a step on land. Vessels of all shapes and sizes once navigated the intricate web of Venetian canals, much more than they do today, as will be addressed later.

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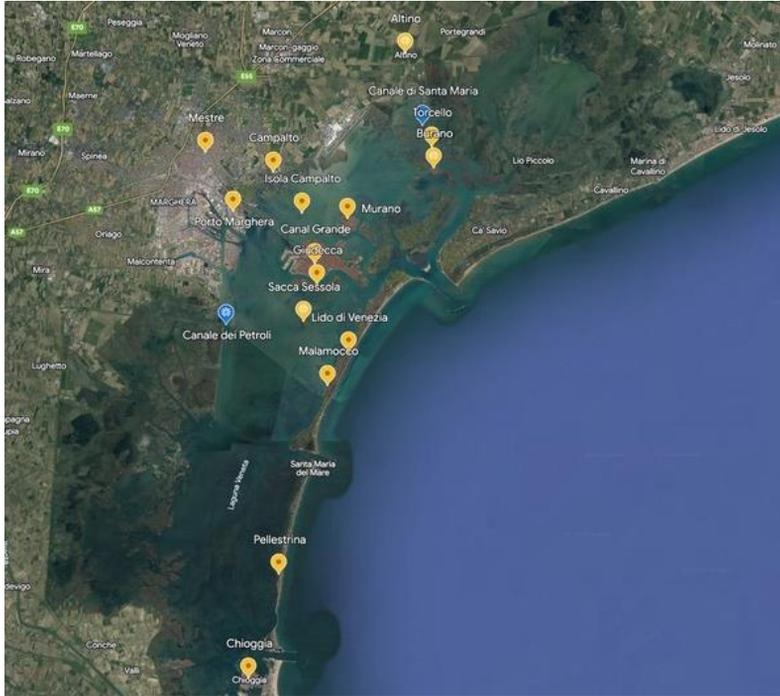


Figure 1 - map of the Venetian Lagoon with locations cited in the article (Google Maps, 2023)

However, the main waterways that this article is going to follow are not those. In the unique socio-ecological system of the Venetian lagoon, waterways are constituted not only by the narrow canals of the historical centre but also by the wider ones marking its flat lagoonscape. Looking at any nautical atlas of the lagoon, such as the one shown in Figure 2, one can realise how, starting from the inlets between the littorals separating the sea and the lagoon, navigable channels branch off within the latter in always narrower fluid paths, called *ghebi*. Over the centuries, this branching structure has inspired an analogy with the human respiratory system. Relaunching this powerful metaphor, Bonometto entitled his 2015 book *Il respiro della laguna* ('The breath of the lagoon'). Here he explains the functioning of salt marshes through that of the bronchi that divide into the bronchioles and then into the alveoli in mammalian lungs. The metaphor is not only visual but also functional. This complex hydro-morphological system allows tidal wave to enter gradually and expand until it becomes the time for the tide to recede. This is how, by rhythmically exchanging water and the nutrients associated with it, the lagoon *breaths*. As Omodeo (2021) stated, Venice – conceived as both the city and the complex environment surrounding it – is a “living artifact”. With its millennial history of water management and its composition from diverted rivers, completely artificial islands and mighty dykes (Bondesan & Furlanetto, 2012; D’Alpaos, 2010), its nature-cultural continuum is evident exactly in this integration of artificial waterways with natural ones.

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Figure 2 – Nautical Atlas of the Venetian Lagoon with various internal waterways indicated (n.p.d.)

In the first part of this article, I am going to analyse how the peculiar interaction between water, land, and the community inhabiting the Venetian Lagoon makes it possible to refer to it as an *aquapelago*. This concept was introduced by Hayward in the context of Island Studies and is defined as: “an assemblage of the marine and land spaces of a group of islands and their adjacent waters” (2012, p. 5). Elaborating on this, I will discuss how it is possible to talk of an aquapelagic identity of the society living in the Venetian Lagoon. I argue that this identity has changed and, indeed, declined, over time. I contend that this depotentialisation is deeply connected to the simplification and reduction of the use of boats along its waterways. For this reason, in the second section, I will take the suggestion made by Krause (2019) to adopt a watery angle to analyse these dynamics, a methodological tool that he defines as *hydro-perspectivism*. Taking the standpoints of two specific and very different kinds of boats, the *vaporetto* (waterbus) and the kayak, I wander across the lagoon’s waterways by following its particular branching structure. Starting this journey from the Lido inlet aboard the waterbus, the hydro-perspective will then shift when going down to the water’s edge and navigating the bronchiole system of the *ghebi* aboard a kayak.

Different qualitative research methodologies were applied in this work. In what follows I have intertwined interviews with auto-ethnography and diaries, so that these two types of data can reinforce each other: results coming from the interviews are supported by my own experience, and vice versa. I also draw on questionnaires submitted to a small sample group from which I extracted results using thematic analysis. Following Ellis, Adam and Bochner (2011, p. 277), I practised autoethnography by seeking to develop “aesthetic and evocative thick descriptions of personal and interpersonal experience”. This is what Ellis in another article calls ‘Heartful Autoethnography’ (1999), which here I perform in one section in particular, namely in the description of a kayak trip in the northern lagoon. The other

kayak trip I refer to, which took place in the southern lagoon, is part of a wider exploration of nine sites of the Venetian Lagoon that I critically narrated in a diary. The conversation with a fisherman I had during that trip is a semi-structured interview that I further elaborated by intersecting the direct experience with the critical analysis of the socio-ecological issues emerging from that dialogue. In general, since the autoethnography is conducted on water, the *fieldwork* becomes *waterwork*, with all the consequences of this switch. Again, hydro-perspectivism will help in understanding what it means to conduct research from the water standpoint, or, more precisely, from the boat standpoint.

I. The Venetian Lagoon's aquapelagic identity and its decline

As previously introduced, the *aquapelago* is defined by Hayward as an assemblage of water and land. Here lays its conceptual power and its adherence to the Venetian case. The concept of assemblage emerged from the philosophical current that has deeply investigated the entanglements of reality through the manifold shapes of relationality. In *A Thousand Plateaus*, Deleuze and Guattari play with different concepts of their invention, including *agencement* (from which the English term 'assemblage' derives) and the rhizome, that "has no beginning or end; it is always in the middle, between things, interbeing, *intermezzo*" (1987, p. 25). These concepts prove to be useful when analysing the aquapelagic assemblage proposed by Hayward. Indeed, with this expression, he wants to "emphasise the manner in which the aquatic spaces *between and around* [my italics] islands are utilised and navigated" (Hayward, 2012, p.1). In this article, I aim precisely to explore the *intermezzo*, the in-between represented by the waterways winding in the lagoon and by the boats that navigate them.

Addressing the lagoon of Venice as an aquapelagic assemblage is not new. In an article exploring the folkloric imaginary of the Venetian Lagoon, Hayward refers to the latter as a "paradigmatic aquapelago" (Hayward, 2021a, p.18). Kelman does the same when explaining the unique water-land interactions that characterise the Venetians wetlands:

Venice is fundamentally an amalgamation of land and water. It is an archipelago through being a collection of islands, while also representing an aquapelago. (2021, p. 83).

Water-land interactions are also at centre of the inquiry mounted by Przionato, who retraces the environmental history of the Venetian Lagoon through the lenses of the assemblage theory proposed by DeLanda. She writes that: "Venice, as an aquapelagic assemblage, is conceived as emerging from the interaction of heterogenous components and evolving in time through processes of territorialisation and deterritorialization" (2021, p. 125).

Aquapelagic imaginary, water-land interactions, and assemblage theory are all useful concepts when defining the traits of the *aquapelagic society* under consideration. This latter is defined by Hayward as:

a social unit existing in a location in which the aquatic spaces between and around a group of islands are utilised and navigated in a manner that is fundamentally interconnected with and essential to the social group's habitation of land and their senses of identity and belonging. (2012, p.5)

Therefore, an aquapelagic society not only takes advantage of the water surrounding the islands where it has developed over time, but its identity is *fundamentally* shaped by the ways this same society has interacted with the inhabited waters. This means that, without the particular assemblage of land and waters culturally constructed by the society taken into consideration, this last would lose, or better would change, its identity. I argue that the Venetian Lagoon has changed its identity over the last century and a half, or, to put more dramatically, it has lost its aquapelagic identity.

Even if she does not use the concept of aquapelagic identity, Cavallo describes a kind relationship with the lagoon waters which could be defined exactly in this way. Indeed, she writes:

The kind of life that characterised Venice for centuries was essentially aquatic and insular, implying a very close relationship with the lagoon, understood as a source of direct livelihood, for some categories, as well as of power and prosperity for the city community as a whole. Even after the city's loss of economic and geopolitical centrality, the lagoon, though with largely downsized functions, has long remained a privileged space of daily practices. (2016, p. 130 – author's translation)

Cavallo identifies the “irruption of modernity” (2016, p.130) as the turning point for the decline of this intimate relationship with the lagoon waters. A turning point that is exemplified by the construction of the railroad bridge, ended in 1846. This “de-insularisation act” (2016, p. 131) utterly changed the mobility dynamics within the lagoon, allowing a faster and much more consistent transfer of people and goods between Venice's historical centre and the mainland, which was previously possible only by boat along the lagoon waterways. Since then, and even more with the inauguration of Porto Marghera on the mainland and of the road bridge in 1933, a “system of imbalances” (Scano, 1985, p. 293 – author's translation) took shape: Marghera fulfilled the role of the industrial hub, Mestre, as the residential centre and Venice as the administrative centre and tourism centre. Moreover, the irruption of modernity resulted in a disregard for the water element to the benefit of the terrestrial one. The 19th and 20th centuries witnessed a proliferation of engineering works that aimed at the subjugation of water to human power (Gruppuso, 2022). In this regard Cavallo attests that other watery cities such as Amsterdam or Copenhagen were able to “revive in a modern and postmodern key its urban insularity, exploring new ways of being city-archipelago, where one continues not only to live on water, but with water” (2016, p. 131). On the contrary, in the case of Venice's lagoon, “insularity and lagoonarity have increasingly been conceived as mere obstacles, rather than as peculiarities (also convertible into opportunities)” (2016, p.131 – author's translation). In order to conceive and convert insularity and lagoonarity into opportunities, I am now turning to a concept that will allow us to approach the aquapelagic of the Venetian Lagoon from a different perspective, namely a watery one.

II. Hydro-perspectivism: the boat standpoint

In the homonymous article (2019), Krause proposes *hydro-perspectivism* as a new ethnographical method. After having suggested, in another influential article published together with Strang, to “think relationships through water” (Krause & Strang, 2016, p. 635), the author situates this approach directly *in* the fluid materiality of this element. Indeed, he states that by analysing social dynamics “from a watery angle, we can learn something

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about terrestrial life that would have been more difficult to apprehend from a more “grounded” perspective” (Krause, 2019, p. 94). I am going to situate my considerations even more by choosing as my observation point that particular artefact that allows humans to move on water: the boat.

In the Venetian Lagoon boats are the means of transport used for the most basic needs. Small cargo boats move all types of goods across the islands of the lagoon on a daily basis, and waste disposal boats collect the waste of Venice’s historical centre, Giudecca, Murano and Burano islands from almost seventy collection points. Police boats and water ambulances also operate, confirming that even the most elementary services are supplied on water. Farmers also rely on boats to carry the products that feed many inhabitants of the lagoon. However, despite its persistent daily usage, the boat has lost its fundamental role as demiurge of the aquapelagic identity of the society of the Venetian Lagoon. This is evident in the decline of the production of traditional hulls. Before the appearance of the motorboat, there were myriads of different types of wooden boats that served for the transport of people and goods within Venice’s centre and between other islands. However, since the 1950s, there has been a collapse in the production of wooden boats. As Caniato writes in his study of traditional boats of the Venetian lagoon: “most of the surviving traditional hulls, initially adapted for motorisation, proved increasingly inadequate to the new types expressly designed to accommodate inboard engines” (Bonifacio & Caniato, 2013, p.44 – author’s translation). The same author reports a particularly meaningful quotation by Zanoletti, who collected such a number of boats to showcase them in a museum:

Every time an animal species becomes extinct, life on Earth becomes depleted. And with it the human species, because our wealth also consists in the variety of everything around us. Similarly, when a type of boat, but also the history associated with it, disappears and its memory is lost forever, it is culture and man himself that suffers. (Bonifacio & Caniato, 2013, p.32 – author’s translation)

Together with the decrease in the “biodiversity” of boats, many of the daily practices associated with them have vanished too. Nuances have been lost, swallowed in the frenetic pace of the contemporary world. As Cavallo admirably explains:

Traditionally, boats served as true tools of interaction with the lagoon. Not only a means of transportation and the exercise of economic activities, primarily fishing, boats were also the vehicle of direct contact with the lagoon environments and landscapes, the fulcrum of values, knowledge, anthropological and symbolic meanings, the medium of spatial knowledge and forms of orientation consistent with the fluidity of the context; they were the element through which the lagoon was experienced in the manner of a true connective tissue. (2016, p. 132 – author’s translation)

We thus come back to the beginning of our reasoning, to the *intermezzo* of Deleuze and Guattari. Indeed, what better than the boat can represent the *agencement*, the in-between that relates waters and lands? By connecting these two extremes, with all the intermediate environments, such as shoals and emerged (*barene*) and submerged (*velme*) areas of land, the boat has constituted for centuries, if not millennia, a fundamental aspect of the aquapelagic identity of the lagoon. This aspect is itself multifaceted; ‘boat’ being a category that encompasses a wide range of forms. Many of these types have almost or completely vanished, but others have entered the scene and can give us useful insights into the

contemporary condition of the Venice's aquapelagic assemblage. By taking advantage of the concept of hydro-perspectivism, I will try to identify the diversity in perspectives offered by equally different kinds of boats. Indeed, each type of vessel, with its particular characteristics and its singular way of moving and interacting within the lagoon waterways, constitutes a unique and precious standpoint to analyse both watery and terrestrial dynamics. More specifically, I am going to present the points of view offered by two very different types of boats: the *vaporetto* (waterbus) and the kayak. The first, in its lagoonic specificity, is considered with regard to its tourist function. The second constitutes instead an example of an imported typology of a vessel which, however, fits perfectly into the lagoon environment.

III. The *Vaporetto* – In-between Venice and the world

“In collective transportation, Venice has moved ahead of all other major Italian cities” stats Penzo (2004, p. 9 – author's translation) writing about the history of public transportation in Venice. The first *vaporetto*, called Regina Margherita, entered into service in 1881, incidentally incurring the wrath of the gondoliers of the time. The contemporary waterbuses are not so different in shape and speed from the first ones. Perhaps exactly thanks to this slowness, Penzo continues, “the waterbus is a very particular means of transportation, unlike buses and cars it has a relaxing and socializing effect” (2004, p.9). We could say that the daily usage of the *vaporetto* by many Venetians (in the broadest sense of that term) is one of those aquapelagic traits that still define the lagoon identity. This is even more true considering that many of the lagoon inhabitants (and in particular those living on the outer islands) could not carry out their daily routine otherwise. In this article, however, I follow the perspective of tourists who utilise this particular local type of boat. Venetians are not the only ones who move on the lagoon waterways by boat. Every year, millions of visitors crowd into the *calli* (narrow streets) and canals of Venice. They thus constitute a large segment of the human population occupying the Venetian Lagoon, even if a constantly changing one. With their habits, trajectories and desires, they impact every urban ecosystem, but deeply impact the Venetian one in particular. This is due to the disproportionate ratio between the amount of visitors and the residents inhabiting the historical centre (just think that the number of bed-places for tourists in the historical centre is soon going to exceed that of residents – Salerno & Russo, 2022).

Sometimes, tourists choose (and have the economic means) to reside for their stays outside of the shapeless mass of humans that tangles in the historical centre. One of these peripheral destinations is Lido which, together with the island of Pellestrina, constitutes the littoral separating the sea from the lagoon. Between September and November 2022, I had the chance to distribute a questionnaire to guests staying for short periods (3 to 7 days) in one of Lido's many tourist apartments and received 17 completed responses. While the small sample size obviously meant that its responses were not necessarily indicative of broader patterns of tourist experience and perception within the lagoon, the exercise nevertheless proved insightful in terms of the information that the apartment guests provided.

The questionnaire was composed of four specific questions and an open section for personal thoughts. The questions were the following:

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- What kind of boats have you used to go around the lagoon in the past few days?
- Did you explore only the historical centre or also the lagoon? Which areas?
- What has impressed you most about the environment during your boat trips? Did you have any particular encounter? (Not only with people but also with animals, plants, infrastructures etc.)
- Which word best represents Venice for you?

I then analysed the answers to these questions through thematic analysis, following the steps indicated by Braun and Clarke (2008, p. 87). After having transcribed the data, I coded it to identify potential themes. Some of these last corresponded to the thematic focus suggested by the questions themselves, such as the first two. Many and varied themes arose in the answers to the more general questions, and in the open section. My approach being a theoretical one (theoretical thematic analysis, or deductive as explained by Braun and Clarke, 2008, p. 83), I selected only themes related to my research questions, ignoring other less pertinent ones. For instance, the accountability and timing of the waterbus system service was a topic highlighted in different questionnaires, but not particularly significant for my research. Instead, guests' self-reflection on the impact of tourism or considerations on the environmental status of the lagoon were very appealing to me. Braun and Clarke also suggest a difference between explicit and latent themes: while the first are descriptive and remain on the explicit level, the second requires the researcher to make an interpretative effort (2008, p. 84). For instance, the set of reflections proposed by some respondents on the quality of water (see below) can be labelled as an explicit theme, while other statements in which the semantic area of the "island" was outlined were actively reorganised by me in terms of the concept of *islandness*. Another latent theme I made emerge from the questionnaires is the one that may be well-represented by the concept of *water-boat-human assemblage*. This is theorised by Rhoden and Kaaristo while discussing the agency of water in the context of boating tourism. The authors suggest this concept to better comprehend the complex interrelations between the "human, material and technological component" (2020, p. 7). In the case of tourists traversing the lagoon of Venice – most often for short distances – the bond between the three elements of the assemblage is probably not as tight as the one that forms during the trips analysed by the aforementioned authors (sailing tourists and canal boaters being the main subjects of their research). Yet, thanks to thematic analysis, I identified equally engaging themes, as I am going to illustrate in the next paragraphs.

To the first question, asking the type of boat used during their stay, almost all the guests (with one exception, which I will return to) answered that they took the waterbus to move along the waterways that connect Lido to Venice and the other islands of the lagoon. It is interesting to note that most of them used the Italian word *vaporetto* to address this type of boat, thus demonstrating some knowledge – even if a very basic and maybe exoticising one – of the local vocabulary. Answering the second question, most of the guests indicated the historical centre and the world-renowned islands of Murano, Burano and Torcello as their destinations. However, some of them – 4 out of 17 – identified that they also explored other areas of the lagoon, sometimes specifying precise peripheral locations, such as Malamocco (in southern Lido), Pellestrina (the other littoral separating the lagoon from the sea), and even Chioggia (an ancient town in the southern lagoon). This demonstrates the existence of niche tourism even in an over-frequented destination such as Venice. This form of tourism escapes concentrated areas by selecting less popular trajectories and by exploring areas where aspects of the aquapelagic identity of the lagoon are still strongly

present. For instance, for a significant portion of Pellestrina's population, fishing still constitutes the main economic activity (Vianello, 2017). Connected to this, it is worth highlighting how, even in the historical centre, a group of guests noted the presence of fishermen. In the section dedicated to personal thoughts, Jacqueline indeed wrote: "I was surprised by how many fishermen I sometimes saw in touristed areas. I assume for some this is their livelihood rather than a hobby". Similarly, Irmgard was "surprised that there are not only tourists (there are very many!) in the centre of Venice when you go a bit further from tourists' paths". Together with the realisation that there are still people inhabiting Venice, an awareness of the social and ecological problems caused by over-tourism also emerges from the questionnaires. For instance, Deborah affirms that "locals are very friendly, tourists are often not (there are just too many for this little space)". On the other hand, Jacqueline highlights both the pros and cons of mass tourism when she states that "the high volume of visitors must put real pressure on the infrastructure of the city and also makes it difficult for Venetians to live their lives due to the crowds. Yet, I understand the income generated is essential for their livelihood." Here, Jacqueline is implicitly referring to the form of gentrification that Bertocchi and Ferri call place-based displacement, which they define as "a situation of conflict between residents and tourists that derives from the necessity of sharing the same spaces" (2021, p. 195). Waterbuses are part of these spaces, and their negotiation with tourists is indagated by Bertocchi and Ferri in their analysis of the gentrification processes in the case of Murano, one of the lagoon islands most affected by over-tourism. This is a perfect example of the opportunity of addressing grounded dynamics from a watery angle suggested by Krause: waterbuses correspond indeed to a privileged standpoint from which to investigate social interactions such as the phenomenon of place-based displacement.

Similarly, some of the expressions present in the answers to the questionnaires are useful to grasp other aspects of the (hydro-)perspective of tourists over the lagoon. The first and most compelling element is the trait of *islandness* that emerges from some answers to the third question (what has impressed you the most...?). In two cases, this feature is attributed to the city of Venice only: Irmgard indeed writes that "Venice seems to be very big, with so many islands and big islands", while Patrick says that he was impressed by "a city of historical buildings, built on all these small islands, connected with small bridges". Fabian's answer is instead vaguer and expands the sight to wider horizons. He indeed notes that he was fascinated by "the huge presence of air (the sky) and water (the laguna), and so the thin limit in-between (the city and island)." What is the island Fabian is addressing here? It could be Lido, both separated and connected from Venice's historical centre by the lagoon waters. It could be any other of the lagoon islands that form the land component of the aquapelago we are analysing here. It could be also Venice itself, in its amphibious dimension of a city built on water. What is most thought-provoking is the choice of the expression "in-between" (which Fabian also selects as his word best representing Venice).

In-between as the *agencement*, the rhizome of Deleuze and Guattari. In-between as the aquapelago, and as the waterbus that moves across it while linking water, land, places, humans and non-humans. Among the latter, fish are the element that attracted most attention from the respondents to the questionnaire. Maria Eugenia for instance tells that she was surprised to see fish because she thought the water was too polluted. We here realise how hydro-perspectivism is a useful tool to analyse not only grounded dynamics, as Krause suggests, but also those happening on the same waters where the standpoint (in this case, the waterbus) is located. To the view over the city of Venice, thus, we add the view over the lagoon waters. Interestingly, two different opinions on the status of the latter emerged. Maria Eugenia, Jacqueline also notes that "the water of the canals appears dense

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milky” and she wonders “about the natural habitat, how it survives under these conditions”. Ingrid relates the poor water quality to the use of diesel to power boats. She describes the bad smell of the water she perceived during boat trips and wishes that “all public transport will go electric next time we come!”. By contrast, Tracy was impressed by the cleanliness and by the limited amount of litter in the lagoon waters. Similarly, Geraldine appreciated the water transparency, describing it as “not muddy at all”. Different points of view collide, making clear the ever-changing nature of the lagoon, variable according to the meteorological circumstances, the tide, the season, but also to the number of tourists visiting it. For instance, during the COVID-19 pandemic, water transparency notably increased. This was due, according to Braga et al. (2020), to the decreased mobility following the beginning of the lockdown and the consequent reduction of wake waves.

Another interesting aspect is the one related to the perception of the quality of mobility along Venice’s waterways. “There is never any traffic like there are any roads” Steven notes. This perception, although quite poetic, is however contradicted by the facts: the huge number of boats circulating within the lagoon is a problem much felt by locals and even by institutions, to the point that on the UNESCO website, it is possible to read:

For the lagoon of Venice, the phenomenon of wave motion is mainly attributable to the considerable increase in motorboat traffic. The destructive effects on the environment are triggered by the power of the engines, the speed of the boats, and by the hydrodynamic characteristics of the hulls of boats.
(UNESCO, nd)

Wave motion is indeed considered by UNESCO to be one of the macro-emergencies of the lagoon, both regarding the historical centre (with the foundations of ancient palaces falling apart) and the many peripheral abandoned islands that are going to disappear soon for exactly for this reason. It is then clear how aspects of the world appear and disappear according to the perspective adopted.

Always connected to the quality of the waterbus motion, an anonymous guest states that what impressed him/her the most was “the movement of the boat in your body after you’ve entered solid ground again”. Again, we find in-between the fluidity of water and the solidity of land, in-between the two dimensions of the lagoon aquapelagic assemblage. Being an assemblage, they compenetrates each other: fluid dynamics enter the body of the boat and consequently that of the individual. Both constitute, in their real and apparent floating, the link between the extremes of the assemblage. Both are in-between.

From the waterbus, if you stop observing the lagoon waterways and look back, the perspective on what happens on the boat itself is added to that on the water. Some answers to the second question highlight exactly the social dynamics that happen on this particular means of public transport. Geraldine for instance tells how she was impressed by: “the interaction between people on the boat”. Here we come back to the socialising effect Penzo talked about. But, as in the other means of public transport, many passengers spend the time of the journey on their smartphones. However, on the waterbus, it is much more likely to see people talking to each other than, for instance, on the bus or in the metro. The slowness of the boat, its constant movement, and the higher possibility of finding a seat are some of the reasons for this difference. To further enhance the socialising effect of waterbuses, new boats for some of the busiest lines were made with groups of seats facing each other. In this way, the *vaporetto* explicitly takes the shape of a floating living room.

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Figure 3 – New *vaporetto* interior, with facing seats (author's photo - October 11th 2021).

One of the most stimulating but at the same time disquieting experiences I shared with some visitors within this salon-in-motion happened on a waterbus heading from Murano to Venice. A couple of tourists asked me for directions on how to get to Saint Mark's Square. I showed them the route on the map, then I asked where they were from – even if I could already guess from their British accent.

"Jersey, Channel Islands", they told me. I had no idea where these islands are located. The couple explained that Channel Islands are in the English Channel, but much closer to France than England.

"Do you experience problems with sea-level rise?" I asked again, curious about the point of view of other island dwellers.

"No... they are hilly islands" the man answered serenely although somewhat disturbed by the question.

"Do you?" asked the woman in turn.

"Oh yes... a lot." I smiled, bitterly.

After we said our goodbyes, I checked on the internet: "Environmental experts are warning that people across the Channel Islands could face increased coastal flooding and extreme weather" (ITVX, 2022), was written in the first article I found on the issue. Venice's lagoon may be one of the most fragile spots with regard to the effects of climate change but most of the coastal sites in the world are going to be seriously threatened, sooner or later. The couple from the Channel Islands may live in oblivious comfort for a while, but they will probably shortly realise the upcoming risks for their homeland. A small chat in a floating lounge may, sadly or fortunately, have been the beginning of this hurtful understanding.

IV. The kayak – at the water’s edge

As I anticipated while presenting the questionnaires, the waterbus was the only means of transport taken by the respondents except for one group. In addition to the waterbus, Mari and her group rented kayaks for a wildlife tour. This choice allowed them to take a completely different perspective on the place they were visiting. The historical city of Venice became part of a wider ecosystem composed not only of people but also of non-human entities. To the second question, indeed, Mari answered by listing the wildlife they had the opportunity to observe: “great blue heron, ibis, flamingo, kingfisher, plover, curlew, and a flying fish, plus lots of little egrets”. The accuracy of this observation demonstrates precise knowledge (already possessed or acquired during the tour) of the fauna inhabiting the lagoon and, in particular, of the ornithologic species present. This attention to lagoon biodiversity can be stimulated only by exploring it with a means of transport that, differently from the waterbus, allows closer interaction with all those intermediated environments noted before (*barene, velme, shoals, etc.*).

In this section, we are going to leave the most frequented waterways of Venice’s historical centre (Canal Grande, Giudecca Canal) and of the lagoon (the paths signed by *briccole* such as the one connecting Lido to Venice) to follow the flows of the minor waterways that branch off in the complex ecosystem of the lagoon. I will do this by telling a personal story that deeply impacted my experience of wandering in the lagoon, corresponding to what Ellis et al. (2011) call the “epiphanies” of autoethnography. Indeed, thanks to that specific situation, I embodied the concrete effects of navigating at the water’s edge.

I was eighteen when I left Altino, an extremely important Roman port city that today is a small town with a rich archaeological museum, with my family. We were paddling on our green inflatable kayak, and I remember the strange feeling of navigating a river within a lagoon when, once left the town, we followed the Canale Santa Maria toward Torcello. The island, one of the most ancient and fascinating in the lagoon, acquired the strategic commercial role of Altino in the 2nd-3rd century CE when the latter started falling in decline. Most probably this was not due to the Barbarian invasions, as is erroneously commonly thought, but to landfilling problems, with “defunctionalized wharves, silted channels, repurposed docks, and bridged waterways” (Calaon, 2014, p. 810– author’s translation).

Retracing the journey from Altino to Torcello, my family and I felt as if we were the first Roman explorers leaving the solid mainland and getting lost in the uncertain and ever-changing mud of the lagoon. Ironically, this perception proved to be true: instead of following the Canale Santa Maria and peacefully arriving at Torcello, we directed our kayak to the right branch of the canal that led to the open lagoon. Thrilled by the sensation of freedom of the horizontal lagoonscape that widened in front of us, we wandered across it for a while with high curiosity, ending up in the area of the *ghebi*, a to the south. Even if from the kayak’s perspective the wonderful meandering structure visible from the sky is not graspable, standing at the water’s edge makes you feel like an integral part of this vibrant habitat. Passing near a fisherman’s cabin, that blended in with its surroundings like the nest of a bird, we heard the voice of an old man shouting to us in Venetian. After a moment of disorientation, we realised he was warning us of the imminent receding tide. At first, we did not take much consideration his words, but then, while incredulously observing the water that was speedily flowing away under the hull of our kayak, we understood it was necessary to find the nearest waterway as soon as possible. A real moment of panic occurred when my father, putting one foot into the *velme* to figure out

what our margin of manoeuvre was, saw his flip-flop being sucked into the mud. After that, we paddled as fast as we could to reach the last stretch of the Canale Santa Maria, the one finally leading to Torcello. Being on a navigable channel again was very reassuring, but the contrasting feelings of impotence and then power at the intersection between the artificial and natural waterways will always remain as one of the most unforgettable experiences of my life. This would have only been possible on a kayak. Indeed, any vessel with a deeper hull or deeper rowing would have got stuck long before, impeding the experience entirely or giving it a distinct ending, namely the need to be rescued by the authorities.

However, the kayak is not native to the lagoon. The most similar type of vessel endemic to the Veneto region comes from Roman times and is referred to in the *Commentary on the Georgics* (1, 262) by Servius (4th century CE). Servius mentions the *lintres*, defined as small flat-bottomed boats “used for hunting, bird catching and also cultivating the land” between rivers and the lagoon in the area of Altino (Tirelli, 2013, p. 101). The kayak, instead, comes from the Inuit, an Indigenous people living in the Arctic tundra of northern Canada, Alaska, and Greenland (Stern, 2010). The word “kayak” is the English equivalent of the Inuit *qayaq*. According to Arima, Arctic kayaks provide “water transportation and enable people to hunt, trade, socialize, and wage war” (Heath et. al. 2004, p. ix), but the original role of this boat, “in use for at least four thousand years” was for sea mammal hunting. How did the kayak end up becoming a leisure boat used throughout the whole world and in the most disparate water settings (seas, lakes, rivers, and even lagoons)?

McRitchie (1912) identifies that the kayak first reached the north-east coast of Russia in the 16th and 17th centuries and only later arrived in Europe. According to Molinari (2021), at least from the 18th century kayaks were used for recreation in Great Britain, even if they were much different from the original Inuit ones. During the 19th century they spread to Germany, and then to Austria, Switzerland, Bohemia, France, Italy, and other countries. In 1851, the first smooth-hulled kayaks were created in Lipsia, and in 1865 the English traveller John MacGregor initiated the modern history of kayaks with the one he called *Rob Roy*. This kayak became indeed the point of reference for all the following tourism models. MacGregor paddled all over the world with *Rob Roy*, writing diaries and even books of his watery trips. Once he also had the opportunity to navigate the Strangford Lough, in Northern Ireland, with a type of vessel called a ‘boat-cloak’. This was invented in 1840 by Peter Halkett and represents, according to Molinari, the first modern prototype of an inflatable kayak. However, the boat-cloak had no commercial success and, in general, inflatable boats began to spread only between the end of the 1980s and the beginning of the 1990s (Molinari, 2022). With the evolution of materials and construction techniques, inflatable kayaks became more trustable and, despite their disadvantages compared to the modern fibreglass kayaks (having less rigidity and thus lower speed) invaded the kayak market by virtue of their affordability and portability. At that time, for example, we could have never brought a fibreglass kayak from Lido to Altino and from Torcello to Lido. Only the combination of an Inuit vessel with a modern material such as PVC allowed my family and I to take a kayak trip in the Venetian Lagoon without having to rent it as the guest Mari did during her holiday in Venice.

As a result of globalisation, kayak trips, whether with rented kayaks or private ones, whether in fibreglass or PVC, can be easily allow us to navigate the sea, lakes, rivers, deltas, estuarine areas and lagoons in every corner of the world. Exactly because of the unique hydro-perspective, they enable, kayaks can be used to study urban socio-ecological systems from the water’s edge. This is the case of Hayward who discusses his “auto-ethnographic contemplation” (2021b: 1) by kayak of Burns Bay, Sydney (where he lives) in

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the article 'Entangled in the Mangroves: Negotiating Anthropocene Heritage in the Terrestrial/ Marine Interzone of an Iconic Harbour City'. The entanglement suggested in the title is both physical (the possibility given by the kayak to be literally *within* such an intricate habitat as the one created by the mangroves) and metaphorical. Indeed, in the waters that flow through the mangroves, not only fish and other living creatures are entangled but also a history of dispossession and pollution. Dispossession of the indigenous people living in those lands before the arrival of Europeans, and pollution caused by the tanning industry established in the 1860s. Since then, the waste products changed the pH balance of the waters and entered into the food chain, making it extremely dangerous to fish in those waters. Experiencing and discussing these issues from the kayak's standpoint is different from doing the same from a grounded perspective. While paddling a kayak, you are not only closer to the water but to all those species that live below, on, and above it. You can grasp the rapid movement of fish just below the water's surface, and the kinds of birds showing or hiding, such as those identified by Mari during her wildlife tour. You can realise, as in my case of the trip to Torcello, the depth of the liquid body you are crossing, its changes, its rhythms. You can smell its scent or stink, and at times reconnect it to a history of contamination, and in general to the "Anthropocene heritage", as Hayward calls the way the Anthropocene expresses itself in the form of a detrimental legacy. In his article, he explicitly affirms that he adopts this methodological approach while:

perambulating on foot and by kayak in an attempt to understand Anthropocene heritage in a specific locale and the nature of the artefacts and experiences that might inspire more balanced and sustainable relations between various species and the environment in general. (2021b, p.3)

In the context of the Venetian Lagoon, the Anthropocene heritage is present almost everywhere and it can often explain the loss of the aquapelagic identity I suggested in the first paragraph of this article. Similar to the tanning industries Hayward addresses in his article, Venice was also much impacted by the establishment of an industrial hub, Porto Marghera, that since 1917 indelibly altered both the hydro-morphology, the water quality and thus the ecological dynamics of the lagoon. I recently approached these modifications by navigating the lagoon waterways aboard, again, my green inflatable kayak. This time I was not with my family but with a friend. We were wandering around the area behind Giudecca island, trying to set foot on those islands that are now privatised by luxury hotels. On the shore of one of these, we met Marco, a Venetian fisherman. After having disembarked from the kayak, I asked Marco what he was doing there. He told us that he was searching for worms in order to fish with the bigger ones, but that you needed to know where to go fishing, because the lagoon had changed a lot during the past years.

"Once it was just an oasis, it was fruitful", Marco said:

It was much more... natural. There were many more types of fish that have now disappeared. Then the progress, and this and that and pollution, one species started to disappear, then another one, and now less and less. (Author's translation).

Progress and pollution are the words that interest us the most and both are connected to the establishment of Porto Marghera. "Progress" is Marco's way of referring to the "irruption of modernity" Cavallo identifies in the article cited above (2016), while "pollution" is linked to the direct contamination of the industrial hub. The area in front of

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the industries is indeed classified as a *Sito di Interesse Nazionale* (SIN) (Site of National Interest). This now comprises the terrestrial area of Porto Marghera, but, up to 2013, it extended into Venice's historical centre. On the dedicated webpage of the *Ministero dell'Ambiente e della Sicurezza Energetica* (Deputy Minister of the Environment and Energy Security), it is written:

The presence of several families of contaminants has been detected in numerous cases, the most prevalent of which are as follows:

Soil: Metals, Polycyclic Aromatic Hydrocarbons (PAHs);

Groundwater: Metals, PAHs, organochlorine compounds. (Ministero dell'Ambiente e della Sicurezza Energetica, nd: online)

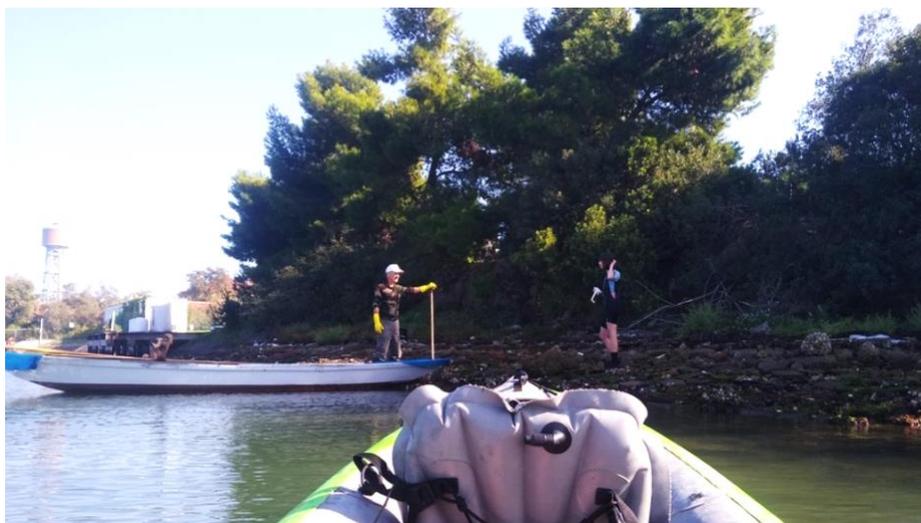


Figure 4 – The author talking with Marco, a fisherman met on Sacca Sessola's shore, from the kayak perspective. (Photo by Giovanni Lorenzi, October 19th 2022).

After the Second World War, the main industry in Porto Marghera was petrochemical. To allow the passage of oil tankers and cargo ships across the lagoon, in 1968 a 12 metre deep canal was dug from Malamocco (the southern inlet of Lido island) to Marghera (Turri & Zanetti, 2016). It is indeed called the Malamocco-Marghera Canal or Petroli Canal, and its creation, in addition to fostering the processing of this fossil fuel inside the lagoon, has had devastating consequences on its hydro-geomorphology. It indeed deeply altered the complex branching system of waterways that makes the lagoon breathe: with a 12-metre canal dug in a surface 1.5 metre deep on average, the tide enters violently into the lagoon, eroding its bottom even more and thus commencing a vicious cycle. Given this dramatic Anthropocene heritage in the Venetian Lagoon, how it is possible to foster “more balanced and sustainable relations”, as Hayward suggested in his article? In the Conclusion, I will try to suggest possible ways to promote fruitful relationships between the Venetian aquapelago and the community – both permanent and temporary –inhabiting it.

Conclusion

As I suggested in the first part of the article, the aquapelagic identity of the Venetian Lagoon has declined, at least from the beginning of the 20th century, and one of the reasons for it is exactly the decrease in the use of boats as a means to deeply interact with the lagoon wetlands. The most evident aspect of this trend is the disappearance of many traditional rowing hulls, which, thanks to their slowness, connect people with the lagoon environment. However, through this article, I do not want just to raise nostalgic feelings for what has gone. On the contrary, I want here to suggest ways in which to reactivate an intimate relationship with water using exactly those kinds of boats I addressed in the article, namely the *vaporetto* and the kayak. This deep connection to water has been characterised as *hydrophilia* (Vallerani, 2018: 6). The term derives from the concept of *biophilia* introduced by Edward O. Wilson in 1984, which indicates the “innate tendency to focus on life and lifelike processes” (1984: 1) and applies it to the water, stressing “the importance of connecting with the water element” (Favaro & Vallerani, 2020: 64 – author’s translation). How is then possible to promote an “urban hydrophilia” that fosters fluid entanglements within a highly settled wetland?

The answer to this question relies on the way we conceive boats themselves. Indeed, if we start thinking of them not only as means of transport but also as means of knowledge, they will offer us all the advantages we have discovered while discussing hydro-perspectivism. Navigating the lagoon waters not only to move from one place to another but also to deeply experience their colours, smells, turbidity and transparency, and all the forms of life flourishing below and on them, makes it easier to realise and take care of their status. Suffocated by the frenetic speed of life in the advanced capitalist era, this mindful attention should be reactivated in various ways. The same questionnaire I proposed to the groups of guests represents a humble way of suggesting to them to experience boat trips as a moment of discovery and awareness of the water-land interactions in the lagoon. There could, though, be many more and more effective ways to revitalise hydrophilic feelings in the local and cosmopolitan Venice community. For instance, it would be possible to enhance active contemplation and discussion on the hydro-morphology and the ecology of the lagoon environment by equipping the boat with booklets, panels, or QR codes linking to interactive content. This simple move, which would stimulate waterbus’s socialising effect, would probably be efficacious both for the curious tourists travelling for the first time along the lagoon waterways and for bored residents who think they already know everything about the routes they navigate every day. Similarly, the wildlife tours promoted by tourist companies such as the one Mari took part in should be fostered among Venetians too.

The case of the canoe association Arcobaleno is instructive. Based in Campalto, on the mainland, Arcobaleno has been active in the lagoon since 1986. In October 2022, I had the pleasure to talk with the association's president, Tito Pamio, while renting his kayaks to explore that lagoon area. We met on Campalto island, located in front of the homonymous town: he was also doing a day trip by boat with other members of the association, taking advantage of the island as their picnic stop destination. I discovered that those day trips are a habit for the Arcobaleno’s members, who can enjoy the island in return for caring for it without any help from the administration. Campalto island is indeed abandoned since, according to Tito, it is impossible to make it a place for public use because of possibly contaminated materials that had been discharged there for decades. We discussed exactly this issue, coming to the conclusion that it is better if the island remains forgotten by the authorities while being enthusiastically visited by the members of the association. After

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our meeting, I proposed a written interview to Tito with three questions on the history of Arcobaleno, the people renting its kayaks, and the type of relationship with the lagoon allowed by this peculiar type of boat. Again, thanks to thematic analysis, I identified some points of interest that support the conclusions I started delineating before.

Since the beginning, the association had a purpose of social benefit. It was indeed constituted “to pleasantly and successfully entertain the neighbourhood’s teenagers on long weekday afternoons”, in the words of Tito (author’s translation). Then, it grew a lot over the years, expanding to adult, local but also international users. Their number peaked at three thousand in the 1990s. The German canoe federation relied on Arcobaleno to organise lagoon rallies, firstly called *Tre giorni in laguna* (three days in the lagoon), and then *Girovagando*, which actually means wandering. Answering the last question, Tito’s words concisely but powerfully convey what wandering in the lagoon by kayak means for him:

Why navigate in the lagoon by kayak? Silence, vast horizons, freedom of movement when paddling individually and more or less guessed pairings when in double, full moons, surrounded by skylines that the world celebrates and envies... observing new floras and faunas, feeling a part of your body being fully utilised for the first time in your life, thrilling yourself with unusual balances on the water, mastering rapids, even managing to get back on your bow if the water or the wind has turned you upside down... feeling for a fraction of your time like the master of an island that no one wants or can inhabit any more....

Many themes emerge from this intense description: the hydrophilic feelings connected to the vastness of the lagoonscape – that include both nonhuman and anthropic (the city’s skyline) elements – the multispecies interrelation, the relationship with your own body in motion, with water and the other elements, and with the abandoned island. All these factors converge in the awareness that the kayak is not only an instrument to move across the lagoon but also a way of deeply connecting with its wetlands. In the different context of the UK canals, Duggan reaches the same conclusion describing “cruising” as a “specific form of spatio-temporal engagement with the world, which does not foreground speed and the destination, but rather the slow journey taken through waterway landscapes” (2022, p. 176). Thanks to the practice of wandering, the boat takes on an agency that modifies the human experience of the wet urban ecosystem. In the words of Rhoden and Kaaristo (2020, p. 7):

The relationship that develops with the boat in the course of these activities and practices is far from instrumental. A vital aspect of entering into the boat-human assemblage is that from the boaters’ perspective, the boat is an active and agentive element in the assemblage.

The boat-human-assemblage, whether it is a waterbus from which the lagoon characteristics are notionally explained, or a kayak from which these same components are intensively lived, thus reveals itself as a powerful means to experience the lagoon aquapelagic assemblage, and maybe begin to rediscover its precious identity.

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