

## LETTER FROM RECIFE OF THE FUTURE TO RECIFE OF 2021

Waters as the heritage of an amphibious city in reinvention

October 15th, 2021.

I am the City of Recife. My body bears my story, replete with marks and memories. River, mangrove and sea were the beginnings of my formation. My name underlies my origins in the sandstone reefs that stand at the seagate threshold, rich in corals, some of which are unique to this place.

I am the oldest State capital in Brazil, the one that implemented the first Urban Plan in the Americas, during the pioneering Dutch mission of the 17th century. In 2037 I am 500 years old, but this isn't my real age as a place. Before the Europeans arrived, I was already inhabited by the natives, who frequented me as the fishing lagoon I once was.

I was born aquatic, from the blend of fresh, salt and brackish waters. I am a child of my watercourses and waterbodies. However, over time, this relationship reversed and I became a city with my back to the rivers. My fresh waters were forgotten and turned into leftover spaces. All through this process, my waterlogged plain was gradually dried out by the landfills covered with buildings. Forgetting the waters at the core of my origins brought major problems. In the absence of substantial changes in the way I understood myself and consequent replanning, rebuilding and redesigning, I would be the first Brazilian city to succumb to rising sea levels. I, Recife, was the sixteenth most vulnerable city on the planet, according to the Intergovernmental Panel on Climate Change (IPCC/UNO), in 2014.

I had always carried the mark of the waters, and some recognized that. It was no accident that scholars such as Josué de Castro and Valdemar de Oliveira, in the mid-twentieth century, already called me an "amphibious city". Although some people had this understanding, all my inhabitants needed to be aware that the waters were the very condition for my existence – for they are part of my nature – and that it was thus necessary to establish a harmonious coexistence, in which protection and adaptation would be essential for my survival.

And it was thinking about climate issues that several discussions began and gained strength through the 2000s. In 2011, an important movement called Recife Amsterdam Exchange (RXA), in which professionals from Brazil and The Netherlands gathered, took a huge step when, looking at me holistically, they managed to interpret me as The Recife Water Tree. Observing me from above revealed the shape of a tree, whose roots are the sea, whose trunk is the meeting of the river basins, whose branches are my rivers, and whose leaves and fruits are the people involved in social movements. From this vision, they concluded that I should be reinvented based on the understanding that nature – my rivers, mangroves, streams, sea and vegetation – needed to be accepted and embraced. Only then could my true transformation take place. My inhabitants realized that my waters were the condition for my existence and part of my nature, and that harmonious coexistence was needed, in which protection and adaptation would be essential for my survival.

It was also at this point that the idea of transforming me into a park city emerged, starting with planning The Capibaribe Park, followed by The Beberibe Park, The Tejipió Park and The Marine Park, all with the goal of my process of reinvention being fully underway in 2037.

The second meeting, in 2019, called Recife Holland Exchange (RXH), reconceived my Historical Center as the center of the park city. The third, in 2021, called Recife Netherlands Exchange (RXN), chose the theme "Water as Heritage: heritage strategies for the challenges of waters in Recife and The Netherlands". Explicitly in this case, the emergence of these meetings began leading to reflections and studies on global warming and rising sea levels.

From the debates among researchers and technicians from both countries, people began to think about ways of protecting and adapting me to the waters that have always been my constitution. People who live here began to worry about the rising seas and how this phenomenon could affect their lives. And then, in the midst of the Covid-19 pandemic, the world was forced to rethink its ways of living, which required a profound change in humanity's relationship with the planet.

I needed to adapt and protect myself, but to that end, my inhabitants had first to take some initiatives. I consulted several experts who were thinking about me. First, I understood that people needed to know and understand what my problem was. One of the specialists emphasized that climate change was a global problem, which has different consequences for different regions of the planet, and that initiatives therefore needed to be thought out systemically, respecting the specific characteristics of each region.

It can be said that the ocean works as a cooling system for the tropical belt and a heating system for the temperate region, with the ocean currents carrying out the thermal exchanges. The problem came to exist because of the growing imbalance in this system: we began to retain more heat, reducing the transfer process and, with the consequent loss of control of this exchange, the balance of the interconnected system began to fail.

A particular feature is that I am located in the tropical region, on the western edge of the Atlantic, at one of the key points where the pattern of heat transfer from the tropics to the poles can be more accurately monitored.

What was expected to happen and what had been happening, especially through the 2000s, was the rise in average sea level and the more frequent occurrence of heavy rains. The great driving force and the big key to solving these issues relates to the oceans. No wonder the United Nations declared the period 2010–2020 the ocean decade. Understanding more about the oceans, their protection and conservation, is vitally important since they cover two thirds of our planet. And the latest forecasts announced two worrying horizons for me: that by 2050, the sea level would rise by around 1 meter and, by 2100, this increase would reach 2 meters, which meant affecting my entire floodplain.

Understanding my situation, other experts proposed possible solutions for the short, medium, and long terms. I was told that short-term action would include mitigating the impacts of climate change by reducing heat islands. As every big city generates heat islands, this effect could be alleviated by planting more vegetation, creating more wooded public spaces, and restoring natural watercourses, with more waterbodies to aid drainage, as well as reducing the burning of fossil fuels. It would also be important not to occupy the banks of rivers, streams and canals, to allow the water to spread out when necessary, in addition to not landfilling the mangroves, ecosystems that help to cushion the impacts of flooding. I have capillarity with my network of rivers, streams, canals, and land that remained unsealed, resources that enabled my adaptation. Nevertheless, there was still a real risk of my submerging.

Long-term strategic suggestions were also pointed out to me. It would be necessary: to give back to my waters the spaces that had previously belonged to them; to plan new buildings, taking into account the possible impacts of the rise in sea levels; to create mechanisms for adaptation and coexistence with flooding and, finally, to plan escape routes in case of extreme weather events. It was very important to know that scientists and technicians were studying my nature and the conditions of my existence. And also to learn about these care alternatives to enable my waters not only to be respected, but revitalized. It was good to understand that this whole environmental movement was pointing to the beginning of an awareness-raising process integrated with movements to combat social inequalities and the adoption of new economic paradigms, such as the green and circular economy.

The conversation with the experts showed me that we had reached a time when we could no longer think in a fragmented or individual way. Events had revealed that our responsibility had a global dimension, so the prospects for my existence also had a global dimension. This implies that what is done here contributes to the planetary situation and what happens on the planet is reflected here. The big challenge for everyone was to learn to think and act in a systemic way.

Today, I recognize that my reinvention became possible only when people organized themselves in environmental, economic, political and cultural movements in the construction of a new ethics towards the world. I think that the urban vision, translated into a city project, synthesizes the materiality and immateriality present in the yearnings of these various citizens' movements, the driving force behind transformation.

I can thus see that the convergence of scientific and popular knowledge reveals the essence of a city. I imagine myself acting as a laboratory for experiments and innovations capable of contributing to planning for future generations, interlinked with a collaborative network that integrates the local with the global. And so, I seek to respond to the challenges of a world in turmoil, where cities can be understood as cells of a planet in reinvention.

I am Amphibious Recife, the city of waterbodies, a cell of Planet Earth, The Water Planet, The Mother Planet; I relearned how to live as a system, to understand myself as a unit and part of a whole. I needed to realign myself, align myself with other cities and, above all, with nature, the reason for my existence. As I am essentially made of water, I recognize my waters as my heritage. We must conserve them!

I am an amphibious, pulsating body. My future depends on each one of you in the continued practice of understanding and respecting the conditions of the legacy that nature has bequeathed us.

Signed: Recife of The Future

