



## ***Going thirsty with your feet in the water in Mexico City***

by Francine van den Brandeler

In 2016, while conducting my PhD fieldwork in Mexico City on urban water challenges, I visited an informal settlement in the south of the city. Amalacachico was built on top of the Chinampas areas, a network of canals originally developed by the Aztecs before the Spaniards arrived. Much of the Valley of Mexico, where one of the world's largest metropolises is now located, used to be covered by a large lake, and this region now holds its last remains. The Chinampas are a system of small plots, or gardens, that seem to float on the shallow lake although they are connected to the lake bed by their roots. The Aztecs depended on the Chinampas to produce food that sustained what was then already one of the largest human settlements in the world. Managing water was essential to ensure good harvests and avoid floods during the rainy season.

As the city grew and affordable housing became scarcer, people moved into the Chinampas and built informal settlements. Self-built houses line the edge of the now severely polluted canals, as houses are not connected to the sewage network and waste is only collected on the edge of the neighborhood. In the rainy season the canals swell and cause flooding. Today, the Chinampas are recognized as a UNESCO heritage site, and as Amalacachico is a slum its residents could be evicted at any moment.

I meet Daniela (not her real name) at the entrance of the neighborhood, where large concrete buildings on one side of the road dwarf the self-built houses lining the canals. Daniela is a single mother and has lived in the neighborhood for several years with her parents, who have lived there much longer. She is an activist fighting for the regularization of the neighborhood and access to drinking water. She considers the lack of access to water the main struggle that Amalacachico faces, and the water utility company will not bring in pipes as long as it remains an informal settlement. Local politicians have made many promises to bring in water but their zeal has usually subsided soon after they were elected. While we walk through the maze of narrow streets and over countless small bridges, she explains that houses are also often under water in the rainy season as the water from the canals progressively rises. Wastewater from each house mixes with garbage washed in by the rains, leading to a toxic stew of rising waters.

Daniela claims that they can live with the floods if at least they have drinking water. Currently flimsy rubber pipes crisscross the neighborhood, including the filthy canals, bringing water to houses from other areas by connecting these pipes to the public water supply system. She admits this is illegal, but defends the practice as people can't live without water. Clean water, that is. This is why she has been on a mission to bring an alternative practice to the neighborhood – a practice that would be compatible with the informal status of the area and the practical challenge of bringing in water infrastructure in the maze of narrow streets and canals. "Rainwater harvesting would be perfect for this community. At home, we already collect water with some buckets and use it to wash clothes. But that's it, there is no project". Daniela has heard of organizations that install such systems, including filters, on rooftops and enable houses to have a reasonable source of water for at least part of the year.

Some argue that the area has been occupied for so long now that regularization is the most humane and pragmatic approach. However, others insist that the cultural significance of the Chinampas area as well as its ecological importance should also be taken into consideration. A biologist from the National Autonomous University of Mexico (UNAM) who has spent years studying a rare salamander that only lives in the remaining lake waters of Mexico City argued that relocating the residents to a new neighborhood is preferable to the loss of an entire species – the Axolotl. What makes the Axolotl particularly unique is its ability to regenerate limbs and body parts, including spines and brains, without any scarring and as many times as needed. As the original lake has shrunk to a fraction of its original size and is heavily polluted, Axolotls have become critically endangered.



Amalacachico remains in limbo as these multiple interests clash with each other, causing a gridlock for which there is no end in sight. Daniela explains that there are initiatives to involve locals in cleaning the canals, especially the algae that covers them, which is then recycled for other uses. Although there is little evidence that this is making a difference, partly due to their limited resources, it is a step in the right direction. Finding a way for people to co-exist harmoniously with the remnants of the lake and its inhabitants will require creative, decentralized solutions and the active involvement of local residents. In the meantime, time is running out for the axolotls, and Daniela and her family continue to struggle to meet their daily water needs.



Bridge connecting a house to the street



Pipes bringing in water to local residents