

WORLD DESIGN TALKS™ WATER

Mexico City (Mexico) 12 October 2018

WORKSHOP SUMMARY REPORT

WORLD

DESIGN
ORGANIZATION



WORLD
DESIGN
TALKS —
WATER

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A UNIQUE
WATER
PROBLEM THAT
CALLS FOR
UNIQUE
INNOVATION



A LITTLE HISTORY

Mexico City used to be an island in the middle of a lake. In 1324, the Aztecs established the city of Tenochtitlan on a small island on the western side of Lake Texcoco, leaving the natural freshwater supply intact around them.

When the Spanish conquerors, lead by Hernándo Cortés arrived, during the 16th century, they took hold of the city and slowly drained all the valley's lake to make room for their expanding empire. Over the years, major floods were recorded so that the crown officials undertook a major project to divert water via drainage system. Today, the fresh surface water is mostly gone and huge pipes are bringing the city's water needs from distant rivers and lakes (which accounts for roughly 30% of water needs) while the rest comes from underground aquifer in the valley.

Today, despite the rainfall for five months of the year, many of the metropolitan area's more than 20 million residents don't have enough water to drink. Nearly all that rainwater runs off the streets and highways and the city is slowly sinking.

In this context, effective design-led water management solutions are emerging from non-governmental organizations, civil society, and educational institutions.

TALKING ABOUT WATER SOLUTIONS IN THE CITY

The World Design Organization (WDO)[®] held its 6th World Design Talks in Mexico City (Mexico) on 12 October 2018. Through a series of keynote presentations in the morning and participatory work in the afternoon, the event gathered around 60 participants and was hosted by CENTRO University in coordination with Design Week Mexico under the banner of World Design Capital Mexico City 2018.

The topic was chosen in relation to the United Nations Sustainable Development Goal (SDG) 6: Clean Water and Sanitation.

The event took a comparative approach and focused on various initiatives that aim at providing clean water in the city. Objectives for this World Design Talk included:

- Share and exchange insights on solutions
- Showcase local initiatives already in place related to the issue
- Provide a platform for future discussions to take place regarding socially responsible design for and from Mexico City

KEYNOTE PRESENTATIONS

CENTRO University's Director **Kirsten Scheuch** opened the World Design Talks and stressed the importance of behaviour change to solve the water problem in Mexico City, as well as the need to secure civil society engagement and an increase in trust for new technologies.



DYA DESIGN YOUR ACTION

DIY Design Your Action was born from the synergy of a group of designers from Mexico and Finland with different specialties, who share an interest in social welfare and trust in design as a generator of great changes for a collective benefit. They work on finding collaborative, innovative, relevant and effective solutions to complex situations within society. During Residencia Semilla they worked with the López de la Rosa Foundation, an organization that brings social support to citizens and works towards fighting social and economic inequalities. Through the specter of **Hana Maquita** (DYA), Edmundo Lopez (Lopez de la Rosa Foundation) and members of the Canal nacional neighbourhood, challenges and short-term solutions to the water issue in the area were presented.

ISLA URBANA

Isla Urbana is a non-governmental organization that has been developing industrial design systems for rainwater harvesting over the past ten years. This pioneer in the promotion of rainwater use has installed about 8,700 systems, which provide water to more than 52,000 users. The kits are designed to provide different types of water quality (from water for toilets and washing up to purified water for drinking), for different types of buildings and roof sizes and for both the urban and rural context. **Renata Fenton**, Director of Design, stressed the importance of educating young children and people in general to use these systems as a means to become more independent in water supplies.

PRIMAL

Primal is a transdisciplinary studio based in Mexico City that works on the development of projects that touch on the fields of visual culture, architecture and urbanism. They have been developing projects around rainwater usage and have developed a rain bar concept. **Hector Juarez**, co-founder of Primal, presented some of these projects.



TALLER 13

Taller 13 is an architecture firm directed by **Elias Cattán** who has been research and designing for water in many ways. He is one of the initiators of “Picnic en el Río” aiming to raise public awareness of the great potential that rivers have to create a more liveable urban context and he has created an art installation made of more than 15,000 jars of dirty water collected throughout the Mexico City metropolitan area for exhibitions for UN Water Day and Greenpeace. He explained how important public actions were to raise awareness on the water issue



WATER PARK LA QUEBRADORA

Water Park Quebradora was launched on the initiative of the Institute of Social Research at UNAM and architectural firm Taller Capital. This water treatment complex situated in Iztapalapa, a highly populated and low-income area of Mexico City features public buildings, public places, recreation areas and water treatment facilities and basins which catch rain and mitigate flooding. The system helps to alleviate water shortages by capturing and recycling water that would otherwise be lost. It was presented by **Gustavo Rojas**, an architect involved in the project.



KOHLER

Kohler is an American manufacturing company that is famous for its plumbing products. The brand has been using its core capabilities for the greater good, and design clean drinking water equipment for those in the world that need it most. **Alex Muspratt-Williams**, a consultant with Kohler, presented some of their relief activities: like Kohler Clarity filter, a simple tabletop system that can provide more than 10 gallons of safe water per day, sent to Florida after Hurricane Matthew.

WORKSHOPS- POSTCARDS FROM THE FUTURE



Participants were divided into three groups facilitated by CENTRO University professors **Matilde Breña**, **Edgar Flores** and **Nina Shor**. They were then introduced to the logic of anticipatory thinking to analyze the challenges around access to clean water. Collectively, they sketched alternative long-term scenarios based on the collected information and elaborated postcards to be “sent” from alternative futures that they imagined, suggesting strategies to embrace and inspire the present.

Organized by **Karla Paniagua**, Director, Center of Research in Creative Economy and “Design for Tomorrow” Programme, all three workshops followed the same pattern.

CONCEPTUAL PRESENTATION

Organizers chose a set of simple and powerful techniques that did not require previous training. The workshop was loosely based on *The Thing From The Future*, an award-winning imagination game developed by the Situation Lab (Toronto) that challenges players to collaboratively and competitively describe objects from a range of alternative futures. The goal is to come up with the most entertaining and thought-provoking descriptions of hypothetical objects from different near-, medium-, and long-term futures. Workshop participants also employed a *Postcards from the Future*, visualization game often by CENTRO.

The three facilitators had participants setting a timeline for the future and focus on the “preferable” understanding of time. They conducted a first exercise on the future in general and then a second exercise on the future of water.

First exercise – thinking a different future

Participants had to design a product or service as a result of the combination of three words (e.g. playful, crisis, identity) Through design and imagination, participants noticed how difficult it was to create a different future while being anchored to the paradigms of the present. Facilitators encouraged participants to think further. Participants were to develop the best scenario for the future and not to hesitate to use science fiction as a tool to push misconceptions and their limits. The designer of the future needs to break paradigms.

“We use imagination to help the participants figure out solutions. This methodology helps the participants to think of the concept of future not as a singular thing - there is no single future, but as many different futures.”

- Karla Paniagua, Director, Center of Research in Creative Economy and “Design for Tomorrow” Programme, CENTRO University

Participants had to develop scenarios with a 20, 30 and 50 years perspective.

Second exercise – addressing the water issue

The scenarios imagined by the participants are the result of the combination between a topic of interest (water futures), a 20-year time horizon (2038), a place (Mexico City) and a common desire: to design strategies to improve access to clean water.

The participants worked with data provided by the [Millennium Project](#) on the water issue. Using the document entitled “How can everyone have sufficient clean water without conflict?”, they participated to a collective intelligence exercise and then synthesized outcomes in a ‘postcard’ sent from the future.

1. Listing the signals of the water problem

Before developing the dystopian and utopian scenarios, participants had to list the “key signals” of the water problem. A signal is a pulse, a fact that helps to understand where change can be implemented in the future. They had to be classified under “noise”, “weak signal” and “strong signal”. Pulses are understood as weak when almost nobody notices them, strong when they are very noticeable or these signs can be only a distraction (noise).

Most groups mentioned as a “weak” signal / important factor of the water issue:

- Fracking
- Diseases due to lack of clean water
- Finding alternative sources of water
- Improving water capture systems
- Desalinization
- Saltwater agriculture
- Water footprint calculation
- Technology-based agriculture

Most groups mentioned as a “strong” signal of the water issue:

- Access to clean water as a human right
- Climate change
- Conflict between nations
- Gastro-intestinal diseases
- Fracking
- Decentralized purification of rainwater
- Vertical agriculture in urban context
- Vegetarianism
- Change in nutrition habits

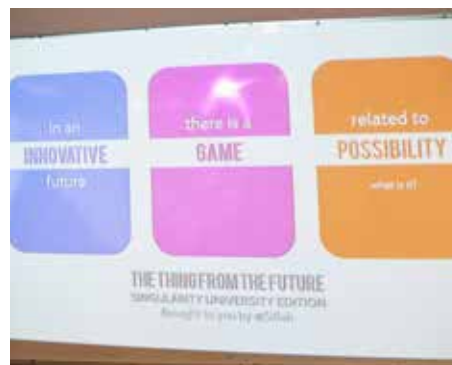
2. Drawing postcards from the future

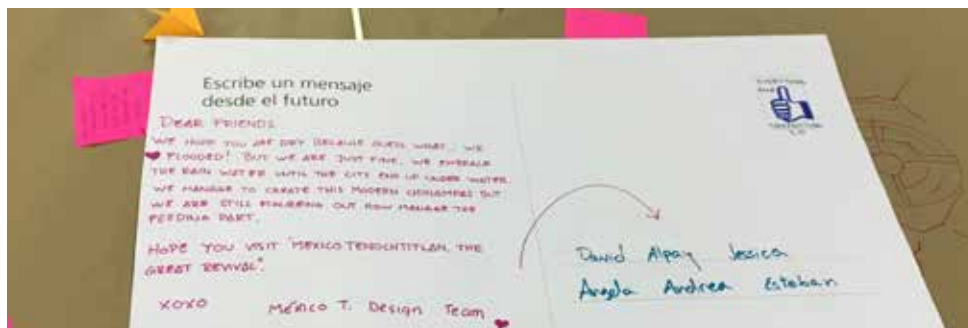
Each group was assigned one card that had either the word Utopia or Dystopia in it.

- Groups that were assigned Dystopia, were asked to design a solution for Mexico City’s future by forecasting a catastrophe. Imagining a pessimistic scenario was meant to let participants understand the water supply issue seriously.
- Groups that were assigned Utopia, were asked to design a solution for Mexico City’s future by forecasting an idealistic future. Imagining a positive scenario was meant to provoke the audience to wish the same future for all the inhabitants and change behaviours to make it reality.

“It is very interesting to help people that have different views to imagine scenarios on a long-term basis. Once people started diving in the concept, they got great ideas on what could be objects of the future, solutions of the future.”

- Nina Shor, workshop facilitator





Overall, the exercise had its focus not necessarily on competing for the best recommendations for a better city, but in the ability to go beyond the natural parameters of thinking. Below are some of the attributes of these scenarios for Mexico City in 2038:

Utopian scenarios

- Use the contaminated water collected from rivers and clean it. Touch on the social conscious of communities
- Move from a “grey” way of living to a green way of living. What will be our relation to water when we are ageing? As we age, we become less self-sufficient, but we need to drink and stay clean. The group came up with the idea of making water accessible by building the city accordingly, the way the ancients did with lakes (chinampas). A chinampa is a type of man-made island, constructed with branches that are placed in the water and then covered by thick mud scooped up from the bottom of the canal until the mud-covered branches reach and surpass the surface. The seeds of an ahujote tree are planted on the island or chinampa in order to strengthen the structure and protect it from erosion. It is then ready to yield crops of all kinds, in the very same manner used by the first settlers of the valley of Anahuac, centuries ago.
- Recovery of currently piped rivers, and reopening of clean water channels in the future.
- Total elimination of the meat industry and full respect for non-human animal life.
- Generalization of rainwater harvesting throughout the country.

“We worked on a solution in which we let the city flood, using the problems that the city has and embraced it. We came up with a scenario in which the living situation is going to be very different.”

- Esteban Parraga, Student, CENTRO University

Dystopian scenario

- Analysing with irony the current heavy rain situation, they came up with a scenario of a flooded city. In this case, lack of food would be the first consequence. The solution would be to revive ancient Mexico and build new land using technology (chinampas) for agricultural purposes. It is not a high-tech solution but a look at the past.
- Water rationing through dispensers, like those currently used in gas stations, since it has become a luxury resource.



CONCLUSION

Most of the participants agreed on the need to promote the collection of rainwater as a good practice and the importance of recovering the rivers currently contaminated and piped in Mexico City.

There is no dystopian scenario but the situation is real. The solution is not a breakthrough one but based on adaptability. To avoid lack of water, save water, work with small changes at a small scale (households, neighbourhoods)

“We really want to raise awareness on the topic [of water] and want to develop critical thinking on it. We want students and members of communities that work with us, to be part of a network. There are many people that are working on the issue that have different values but they are not connected. It is important to create networks to create better solutions for our city.”

- Paulina Cornejo, Head of Social Design Program at CENTRO University

“The presentations of successful design practices on how to think and act for the future of water in the city were closely related to the workshops. Participants linked the design thinking process to what they heard.”

- Graciela Kasep, Head of Programming and Cultural Affairs, Design Week Mexico

ACKNOWLEDGEMENTS

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Karla Paniagua, Director, Center of Research in Creative Economy and “Design for Tomorrow” Programme

CENTRO University is Mexico’s pioneer institution for higher learning in the field of creativity. The Campus has LEED Platinum certification and is committed to reducing its water consumption. The building captures and treats rainwater and wastewater, which is used for irrigation and other services. In terms of curriculum, CENTRO aims at professionalizing creativity by fostering creative thinking and human-centered methodologies.

ABOUT WORLD DESIGN TALKS

Established by the World Design Organization™ (WDO) in 2016, the World Design Talks™ aim to address local challenges of global relevance such as urbanization, climate change, migration, through the lens of design. These participatory workshops help raise awareness about the issues, identify design-driven solutions, as well as gather preliminary findings that can be shared with other communities.

ABOUT WORLD DESIGN ORGANIZATION

The World Design Organization (WDO) is an international non-governmental organization founded in 1957 that promotes the profession of industrial design. WDO advocates industrial design driven innovation that creates a better world, engaging our more than 140 member organizations in collaborative efforts and carrying out international programming—World Design Capital®, World Design Talks, World Design Impact Prize, World Industrial Design Day, and Interdesign. World Design Organization has United Nations Special Consultative Status.

FOR MORE INFORMATION

Interested in the World Design Talks?
Read more about WDO’s [World Design Talks Programme](#) and previous World Design Talks.

CONTACT US

Interested in hosting a Talk? Follow the guidelines in the [World Design Talks Handbook](#). You can also contact communications@wdo.org; let us know what you’re thinking, our team will be delighted to support your initiative!

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