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### **RESIDENCIA SEMILLA: REGENERATING MEXICO CITY'S CANAL NACIONAL THROUGH A PARTICIPATORY DESIGN PROGRAMME**

28 August 2018

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# RESIDENCIA SEMILLA: REGENERATING MEXICO CITY'S CANAL NACIONAL THROUGH A PARTICIPATORY DESIGN PROGRAMME

28 August 2018

*Residencia Semilla* is a two-week participatory design programme organized by [Design Your Action](#) (DYA) in coordination with [Edmundo Lopez de la Rosa Foundation](#), under the banner of the local [World Design Capital Mexico City 2018](#) programme. From 13-24 August 2018, local citizens and interdisciplinary team of designers and experts in various fields gathered at the Instituto Pedagogico Iberoamericano in Mexico City (Mexico) to foster dialogue around the clean up of the Canal Nacional - a 12 kilometer water channel located in the east center of Mexico City.

*As part of its Co-living series, World Design Organization had the opportunity to collect impressions and points of views from different stakeholders involved in this residency programme to learn more about the effect of this initiative on the communities' desire to create a more sustainable environment within the city.*

## **A historical site with a strong heritage**

The Canal Nacional is the oldest and only existing artificial open-air channel in Mexico City. Until the 1950s, this pre-Hispanic waterway produce, merchandise and building materials to the city center. Mexico City was originally built on water but most of the rivers and canals were closed from the 1950 in order to create more streets and roads. In 1993, local authorities tried to close the Canal Nacional to build another road, but local residents and associations fought against it.

The area around the canal is densely populated and is home to several businesses and industries and on one side, the canal links to the [UNESCO World Heritage Site of Xochimilco](#), located 28 km south of Mexico City. On the edge of the residual lake of Xochimilco, some chinampas ('floating' gardens) can also still be found.

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*Picture of the canal “before”*



*A portion of the canal “today” that has already witnessed the benefits of the regeneration efforts*

### **Protecting the environment through a multidisciplinary community initiative**

Faced with an environmental challenge, [Design Week Mexico](#) and the two founders of Design Your Action – [Claudia Garduño](#) and [Xavier Sánchez de la Barquera Estrada](#) – conceived an initiative that would help raise awareness, as well as present design solutions.

A preliminary workshop was organized with local community members and consisted of a series of activities that culminated with the local community writing letters to the residents to express their concerns about the preservation of the flora and fauna. From this pre-workshop, the Residencia Semilla residency programme was born.

Residencia Semilla – which translates into Seed Residency – is an initiative that celebrates diversity and encourages dialogue and collaboration to generate actionable “seed projects”.



Citizens were seen as local experts and hosted a group of visiting experts formed mainly by designers and architects, but also biologists, archaeologists and lawyers. This diverse group met with the aim of identifying opportunity areas and envisioning a better future.

**“ It is a participatory design programme that seeks to foster dialogue and collaboration between citizens and interdisciplinary teams of designers and experts in various subjects. It is expected to have creative proposals that enhance local efforts with respect to two main challenges: mobility design and design for water sustainability.**

*Claudia Garduño, co-founder, Design Your Action*





### **Cleaning the canal, one segment at a time**

The initiative focuses on different projects of short, medium and long scales to protect, preserve and regenerate the Canal Nacional, seen as a socio-environmental unit.

1. *Canal Nacional es* “Canal Nacional is” is a project that will start by making the current efforts more visible and facilitate the integrations of new members and initiatives. It is formed by different “channels” (digital and analogous), dedicated to participation and communication.

2. *Nodos* “Nodes” identifies a series of unused and underused infrastructural elements that are connected by the canal and that can become microhabitats for the communities that live along Canal Nacional. In the short term, connectable structures can be built to host ephemeral events, and moved accordingly. In the medium term, existing bridges can be made wider in order to host different kind of

celebratory and economic activities, increasing the sense of security in the area. In the long term, bigger investment could allow for the regeneration of old spaces such as turning an abandoned treatment plant into a cultural space and observation tower.

3. *Cuicacalli* (a Nahuatl word that refers to meeting spaces where social classes disappear) is a project idea that aims to generate citizen observatories, where knowledge can be generated and spread.

4. *Refugio* “Shelter” considers the canal as a shelter both for humans and other species, as well as for memories and culture. A series of artistic interventions, such as painting aquatic fauna within zebra crossings, would depict how (not too long ago) people used to move through water in their canoes.

### **Challenges and hopes ahead**

The final proposal and the results of the two weeks of workshops were presented to a jury formed by [Fomento Cultural Banamex](#), people from the office of design for inclusive and sustainable streets in México and a local authority representative.



The final proposal and the results of the two weeks of workshops were presented to a jury formed by [Fomento Cultural Banamex](#), people from the office of design for inclusive and sustainable streets in México and a local authority representative.

**“As an architect and urban planner, the experience was most gratifying. It is a project that has all the elements and potential for excellent new urban design; public space, environment, nature, walkable and bicycle mobility, public space and most importantly the consensus from the various groups of neighbors. It is a vibrant community that respects the importance and history of Canal Nacional as a heritage that has to be preserved.**

*Marco Coello, Deputy Director, Design Week Mexico.*

The real challenge is now to get the authorities on board and to raise enough funds to resume the cleaning process but the residency programme has already set a precedent.

**“It brought together very different kinds of people who, in this city, are not used to collaborating side by side. Further than working together, they have lived and laughed together for a couple of weeks. Participants have mentioned that this has been a life changing experience.**

*Claudia Garduño, co-founder, Design Your Action*

Canal Nacional is a vibrant ecological and social refuge from the city that can be useful as an example for other places in the city that need to generate a hydric conscience for creating a better quality of life for all living species and humans.



*In the context of:*



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## ABOUT DESIGN YOUR ACTION

*Design Your Action is a non-governmental organization focused on participatory design that seeks community activation to improve the quality of life and collective-environmental welfare. It was co-founded by Claudia Garduño and Xaviera Sánchez de la Barquera Estrada*

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**ALEXANDER OLESEN:  
INNOVATING URBAN  
AGRICULTURE WITH  
MICRO-FARMS**

28 August 2018

[wdo.org](https://wdo.org)

## ALEXANDER OLESEN: INNOVATING URBAN AGRICULTURE WITH MICRO-FARMS

28 August 2018

*Indoor farming can be a solution to encouraging people to integrate nature into their urban lives. As part of the Co-Living Series, we asked Alexander Olesen, founder of [Babylon Micro-Farms](#), to explain how his project is making this experience more user-friendly and more sustainable.*

### **When nature enters the household**

[Urban agriculture](#) is currently a trending initiative in the Western World and considered as a potential solution to making cities more sustainable. The Micro-Farm is an automated indoor farming appliance that was designed in Charlottesville, Virginia (USA) by a recent graduate from the [University of Virginia](#). It allows anyone to grow fresh leafy greens, herbs, flowers and vegetables at the push of a button. Through Babylon's proprietary technology, it grows a wide variety of plants two times faster and uses up to 90% less water.

Access to hydroponics plant cultivation has been limited by three main problems: the cost of technology, growing expertise and space requirements.



***Design is fundamental to adapting our cities for the future. In order to get people to engage and learn about innovations, we must embrace design as the first line of attack when introducing people to new ideas***

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## Making urban agriculture more accessible

Thanks to a high-level of automation and pre-seeded refill pods, the Micro-Farm creates an intuitive user experience simple enough for people of all ages to experiment with. All users have to do is scan in the pre-seeded refill pod and the technology takes care of the rest, it grows automatically from seed to harvest and sends alerts to users.

The automated growing platform is capable of powering a wide variety of urban farming operations. This could range from a small residential appliance, a larger installation such as an amenity at a housing development, or a full-scale commercial operation.



Image source: Babylon Micro Farms

Watch the [video](#) here

**“** *Designing technology and consumables to be adaptable and scalable all while simplifying the user experience is key. Seeing is believing and the creation of eye-catching structures is essential to garnering public support that will ultimately drive policymakers to introduce nature into cities.*



## ABOUT

### BABYLON MICRO-FARMS

*Babylon is an indoor farming specialist, combining cutting edge technology with innovative agricultural methods to empower a new generation of urban farmers. They have created a system that automates all of the complex aspects of plant cultivation.*

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**SAMEERA CHUKKAPALI,  
DESIGNING PROJECTS  
FOR THE PEOPLE,  
BY THE PEOPLE,  
WITH THE PEOPLE**

28 August 2018

#WDOmember

**Barcelona Centre  
de Disseny**  
*Spain*

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# **SAMEERA CHUKKAPALI, DESIGNING PROJECTS FOR THE PEOPLE, BY THE PEOPLE, WITH THE PEOPLE**

28 August 2018

#WDOmember

**Barcelona Centre  
de Disseny**  
Spain

*In 2018, Barcelona Centre de Disseny (BCD, Spain) hosted an exhibition entitled “BASICS: a path to question ourselves”. One of the key exhibitors was [Sameera Chukkapali](#). She told the World Design Organization about the exhibition, the organization she founded, [NeedLab](#), and her vision of a human-centered design that aims to explore the interaction between nature and technology, between traditional crafts and digital fabrication.*

## **BASICS: a path to question ourselves**



*Credit: Barcelona Design Week (Flickr)*

The objective was to expose the things around us in a new way and rethink society with a more sustainable model through critique and collective awareness. The topics addressed by the exhibition include responsible consumption and production, more inclusive, safer and more sustainable cities and communities, universal access to water

and clean energy, the effects of climate change and the preservation of maritime and terrestrial ecosystems.

BCD central topic was “[revaluation](#)” and the 2030 Agenda of the United Nations Sustainable Development Goals such as responsible consumption and production, more inclusive, safer and more sustainable cities and communities, universal access to water and clean energy, the effects of climate change and the preservation of maritime and terrestrial ecosystems.



The [exhibition](#) was co-curated by Sameera Chukkapali and Alfonso de la Fuente of [Pichiglas](#) and was made up of five installations that create an open park in which you can walk and ask questions about how each of us can positively contribute towards an individual and collective revaluation.



***We return to the basics, such as water, air, land and those main elements that we need to live: food, a house and living in a community***

## **Needlab, a human-centered design organization**

[Needlab](#) is a design research organization based in Seoul (South Korea) aimed at solving sustainability issues for communities using human-centered design strategies.



***With the ideology of “think global, act local”, we focus on unveiling new ways of creating a dialogue between local materials, social customs, cultural heritage, and the environment***

Needlab aims to develop self-sufficient communities that are globally connected. Part of this involves encouraging urban communities to adopt a circular economic model that reduces the reliance on imported goods, food and resources while increasing the use of local and recycled raw materials.

## **The secret to a more sustainable city relies in circular economies**

Communities will be able to resolve local issues if they use locally available resources instead of centralized solutions, if they tackle problems at the grassroots.



***Creating circular economies at the local level and involving the conversations about the role of energy, education, environment, economics and emotion in design solutions is our mission.***

## Building vertical urban gardens using bamboo in Ho Chi Minh



*Credit: Fablab Barcelona*

In Ho Chi Minh city (Vietnam), density has increased so much that there are about 2 sqm of green space available per person (instead of a minimum of 9 sqm). Needlab decided to increase the amount of green space through a bamboo structure that consists in a [vertical garden](#) for the typical tube houses of Vietnam. This structure can grow food for the community (including the people who built it), each of them can get a complete meal from their vertical rooftop garden.

**“The funding for the project was sourced from Vietnam and was invested back into the project: buying local material, training local workers and helping urban communities to grow their own food**

From the start of the project, the community was involved in creating a solution with the Needlab researchers that used readily available, natural materials and that which would be easy to replicate. It was an opportunity to train unemployed youth and provide them with skills to become independent at solving problems.



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Disseny**  
Spain

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## ABOUT

### BARCELONA CENTRE DE DISSENY

*Barcelona Design Centre promotes design as a strategic element for business excellence and as a key factor for innovation, and as a discipline that can improve people's quality of life. The first promotion centre of its kind to be set up in Spain, BCD has evolved in line with changes in the economy and society from the first, constantly adapting its philosophy and activities to the specific needs of the moment. BCD currently develops projects and activities in the following areas: Design Policy, Business Growth and Creative Entrepreneurship, and Promotion and Internationalization. BCD is a member of the World Design Organization.*

[BCD Website](#)

See [photos of the exhibition](#)

More information on Needlab on:

[Fab Lab Barcelona \(link 1\)](#)

[Fab Lab Barcelona \(link 2\)](#)

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**THOMAS GARVEY:  
BIOPHILIC DESIGN,  
CO-LIVING WITH NATURE  
AND OUR HUMAN LOVE  
OF LIFE**

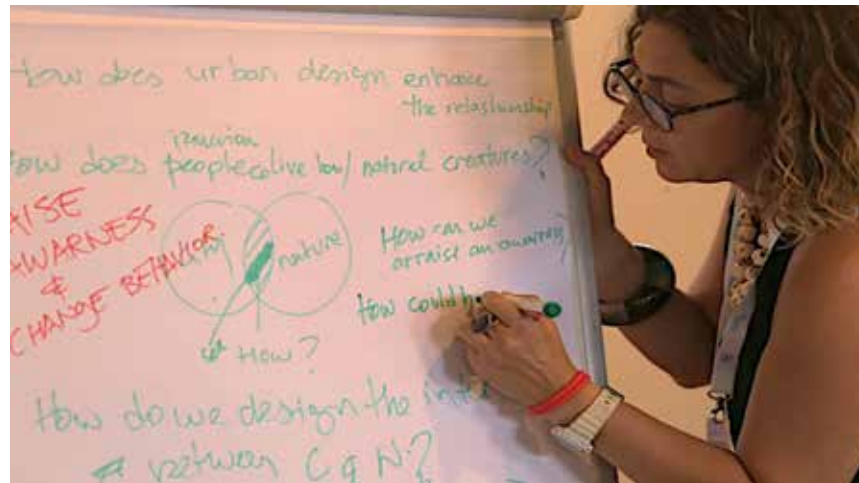
28 August 2018

[wdo.org](http://wdo.org)

# THOMAS GARVEY: BIOPHILIC DESIGN, CO-LIVING WITH NATURE AND OUR HUMAN LOVE OF LIFE

28 August 2018

The recent [World Design Talk](#) organized in Izmir (Turkey) in June 2018 provided a special opportunity to discuss and debate, under the umbrella topic of 'Co-living', the sub-topic of Co-Living with Nature which required thinking beyond the artifacts, constructions, and products and systems created solely by humans. [Thomas Garvey](#), World Design Organization Board member, and Associate Professor at [Carleton University](#) (Canada), shares his thoughts on biophilic design and designing with nature in the context of our special Co-living series.



## What does it really mean to live with nature?

Are we not ourselves part of nature? Why do so many of our large metropolitan citizens feel so cut off from nature? Regrettably, we recognize that too much of our modern society is experienced as artificial and separate from nature, and too many of our everyday settings afford us minimal contact with natural forces. How can design integrate principles and methods to better balance our human relationships with nature? As could be expected some of the best questions came from the open-minded inquiries of students.



***‘Biophilic design’ is an approach to designing human environments that recognizes that our fundamental human experience, over the majority of evolutionary time, has been that of adaptation with natural forces.***

Our fitness, levels of health, and the increased productivity of our activities over time have depended on our interconnectedness with nature.

Today we look for ways to design our environments that bring us into more frequent and sustainable interactions with nature. We strive to avoid the superficial or symbolic gestures for the sake of appearance. The integration of natural elements should reinforce the healthy use of our spaces and be well considered in the planning stages from start to finish.

We explore how air and water, plants and landscapes, materials and colors, and shapes and textures can be integrated in ways that reinforce our positive experiences with our environments. This applies to settings from our most intimate and personal spaces, those we share for work and professional lives, and to our communities and cities.



***Biophilic design is an innovative and rapidly expanding area of study, research, and practice in design.***

At the same time it is complex with many developing and at times diverse interpretations. The great potential however rests on the underlying theory, which was first developed in the fields of biology, psychology, and philosophy.

### **‘Biophilia’ means ‘love of life’**

Theorists describe it as a biologically rooted, sub-conscious, and innate urge for humans to be connected to the rest of natural non-human living systems. It has been expressed as far back as the Greek philosophers.

In his 1984 book [Biophilia](#), the eminent biologist and theorist Edward O. Wilson introduced the biophilia hypothesis and defined it as “the urge to affiliate with other forms of life”.



***As a student I remember the excitement of reading these ideas and one very important moment in a final year seminar on the topic of ‘Design and Nature’.***

After long discussions with professors and peers, and presentations that demonstrated how perfected design in nature was, the day ended with the acknowledgement that the forces of evolution meant that even the best would again be improved with time.

**This insight has continued to serve as a metaphor of the great potential in our design fields and, more importantly, the even greater potential in our students and young professionals.**

Like so many topics, which only a generation ago were just the focus of a single class or seminar, biophilic design has expanded to become an entire field of design. At the same time students and young designers are engaging in greater numbers and developing expertise in the area. These new developments promise faster learning and offer the hope of more rapid generation of solutions that will make very real contributions to everyone’s quality of life.



## ABOUT THOMAS GARVEY

*Thomas Garvey is an associate professor in the School of [Industrial Design at Carleton University](#) and was the director of the School of Industrial Design at Carleton from 2007 to 2017. He is currently a Board member of the [World Design Organization](#).*

*Professor Garvey's research focuses on industrial design for extreme and minimal environments, small-scale living spaces and urban density, integration of the United Nations Sustainable Development Goals in design curricula, and international collaborations. Professor Garvey graduated from Carleton with a Bachelor of Industrial Design. He obtained an MSc in Communications Design from Pratt Institute in New York and a PhD in Architectural Planning from the University of Tokyo.*

*More information on Thomas Garvey:  
<https://carleton.ca/id/profile/thomas-garvey/>*

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**LEYLA ACAROGLU, USING  
NATURE AS A LEARNING  
LAB FOR SOCIAL CHANGE  
MAKERS**

28 August 2018

[wdo.org](http://wdo.org)

# LEYLA ACAROGLU, USING NATURE AS A LEARNING LAB FOR SOCIAL CHANGE MAKERS

28 August 2018

*Leyla Acaroglu is a disruptive designer, social scientist and serial entrepreneur. She has founded the [UnSchool of Disruptive Design](#), and two design agencies, [Disrupt Design](#) and [Eco Innovators](#). Through her [TED talk](#) on sustainability and UNEP Champion of the Earth title, she has become an international activist on sustainable issues.*

*As part of our Co-living Series, we spoke with Leyla about the power of design to better co-exist with nature and her latest project – the [Co-Project](#) where an old olive farm is transformed it into a living learning lab and creative retreat space for social change makers.*



*Image source: [www.leylaacaroglu.com](http://www.leylaacaroglu.com)*

## **Design is a powerful tool for sculpting our surroundings**

We are all in a dynamic relationship with this designed world. We design the world and in turn, it designs us. The way we plan and design communities, be it cities or rural environments, has far reaching impacts both on the health of inhabitants and the natural environment

which we need to sustain life. Along with that, there are also impacts to our cultures that emerge from within these designed spaces.

So many decisions made around the design of cities comes from a linear perspective, based on efficiency and economic gains rather than community, sustainability and thriveability. From the way we lay out roads, to urban architecture designed to influence behavior, we shape our cultures and societies through the design of the city.

### **Protecting nature is about protecting humans**



All humans need air - no one is beyond this very biological necessity, and air pollution is one of the biggest killers of humans globally. When we talk about protecting nature, we often assume it's about 'other' species such as bees, trees or polar bears, when actually it is just as much about us. Most of the negative impacts that we have on the planet come from the associated activities of consumption – be it our cell phones or the pizza we had for dinner. Everything that is created takes from nature and returns pollutants

unless we change the way we conceptualize how to meet human needs in the varying forms of goods and services. Understanding the cycle of life as well as circular and systems thinking, and applying these to design decisions so that more holistic and transformative decisions are made, is crucial.

### **The Co-Project, a living lab for exploring how nature works**



“

*I wanted to learn from nature and immerse myself in an environment that would help me learn how nature solves problems. Everything is interconnected, and this concept became very real to me when I started working in sustainability and systems change. However, I could see that I really had no idea how nature makes its magic happen.*

Leyla took on an old abandoned olive farm in central Portugal and restored the old farm house into a beautiful brain spa for creative optimists, [the Co-Project](#). There, she runs creative residencies, design camps and [UnSchool](#) workshops, along with hosting other facilitators who are interested in activating positive social and environmental change by design.

**“ The Co-Project is based on the concepts I teach such as the [Disruptive Design](#) Method and has thrown me many curve balls and creative challenges. My goal is to create a cultural destination that provides a beautiful, contemporary example of sustainable and regenerative design**

Watch [A Brain Spa for Creative Optimists](#) video





## ABOUT LEYLA ACAROGLU

*Sustainability provocateur and cultural protagonist Dr. Leyla Acaroglu challenges people to think differently about how the world works. As an award winning designer, UNEP Champion of the Earth, sociologist, and entrepreneur, she developed the Disruptive Design Method and designs cerebrally activating experiences, gamified toolkits, and unique educational experiences that help people make the status quo obsolete. Her mainstage TED talk on sustainability has been viewed over a million times, and she leads presentations around the world on activating positive social change through creative interventions and systems thinking.*

*Website to Leyla's projects*

<https://unschools.co/>

<https://www.coproject.co/>

*Personal website and social media*

<https://www.leylaacaroglu.com>

<https://twitter.com/LeylaAcaroglu>

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**INTERCONNECT: PROVIDING  
REFUGEES WITH MORE  
SUSTAINABLE LIVING  
CONDITIONS**

28 August 2018

[wdo.org](http://wdo.org)

## **INTERCONNECT: PROVIDING REFUGEES WITH MORE SUSTAINABLE LIVING CONDITIONS**

28 August 2018

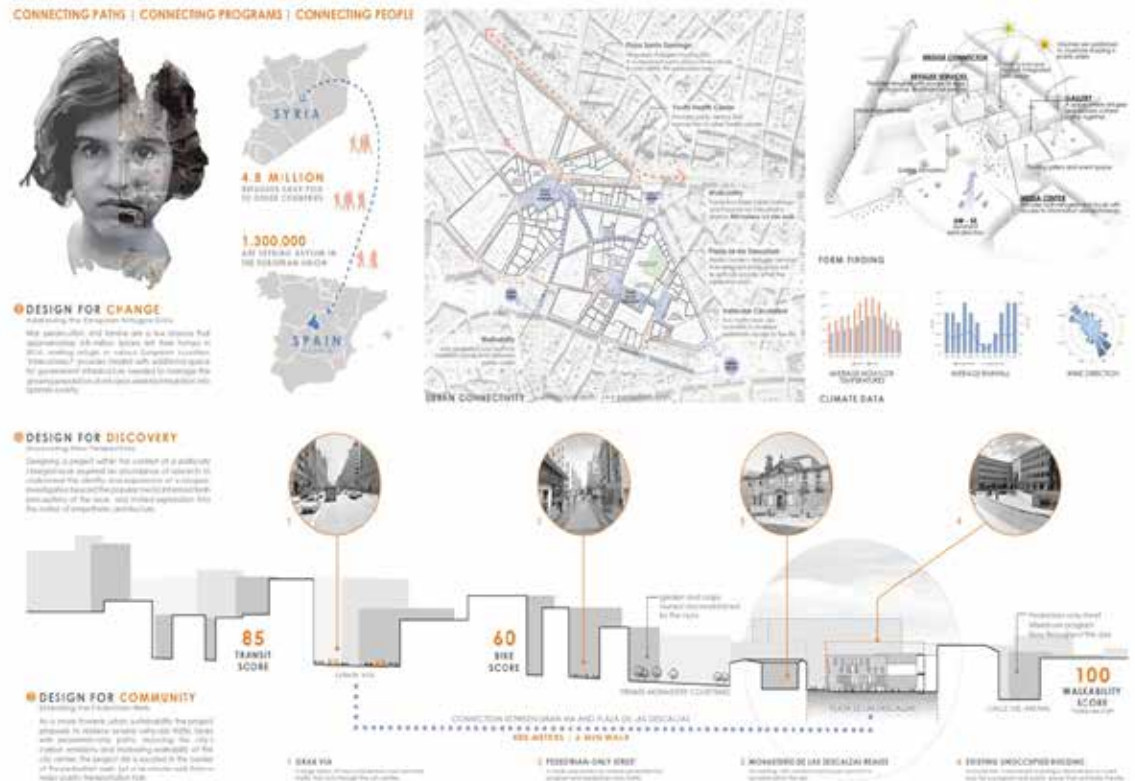
*INTERCONNECT is a student project from Harrison and Madison Polk, [Clemson University](#) (South Carolina, USA). It explores sustainable design strategies in the context of a complex political and social issue through the design of a 55,360-square-foot refugee integration center located in Plaza de las Descalzas in Madrid (Spain). It was rewarded by the American Institute of Architects Committee on the Environment (AIA COTE) and the Association of the Collegiate Schools of Architecture (ACSA) as the winner of the [COTE Top Ten for Students Design Competition](#) in 2017.*

*As part of World Design Organization's Co-Living Series, Harrison and Madison reflected on their project and how it uses design and architecture to improve social interactions in the city.*

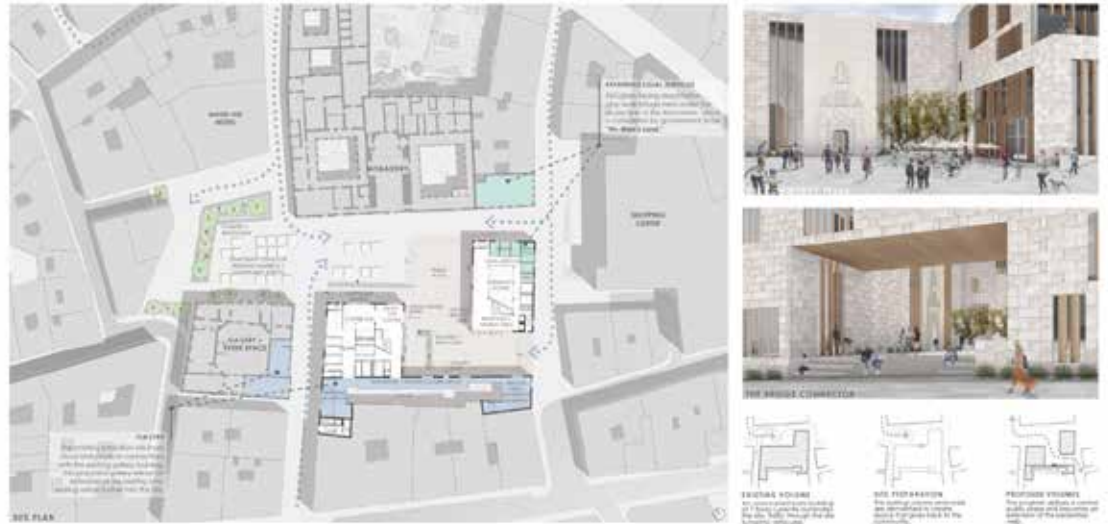


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## Using design to improve emotional and physical well-being of refugees



Entitled “INTERCONNECT: Connecting Paths, Connecting Programs, Connecting People”, the project came from a desire to design a space that was not only sustainable, but also assisted in solving a problem affecting countries worldwide. The problem that presented itself was the resettlement of refugees, specifically in Madrid (Spain).



INTERCONNECT uses a contextual approach to improve the well-being of refugees. The project itself responds to its immediate urban context by providing connectivity to a network of pedestrian paths within the city center of Madrid. This connectivity provides refugees immediate access to services and activities located around the city; echoing the belief that they should feel like they belong. The integration center is designed to frame public space in order to encourage healthy physical and social interactions between the local and refugee user groups.

**“ We think it is important to design with the health of individuals and communities in mind.**

Small terraces are carved out of the building’s monumental form to increase the variety of exterior spaces users can enjoy; each one highlighting a particular view of the surrounding public space as a way to further connect refugees to the city of Madrid. Interior spaces and circulation are organized around open atriums, which act as light wells and provide physical and visual access to the community plaza.





**“ Because the built environment is integral to everyday life and experiences, healthier architecture can improve overall well-being, and encourage healthier social interactions between growing and more diverse populations.**

Openness and fluidity of interior space encourage social interaction between occupants. Even in its smallest details, the integration center is designed to communicate connectivity to the city of Madrid: it is space designed to help refugees connect to their new home.

Stay tuned for the exhibition of the “INTERCONNECT” project at the American Institute of Architects’ National Convention 28-30 March 2019 at Carnegie Mellon University in Pittsburgh (USA).



# ABOUT

## INTERCONNECT

*Interconnect is a refugee integration center located in Plaza de las Descalzas, designed to aid the process of integration for a growing refugee population in the city of Madrid, Spain. The building occupies the site of an abandoned bank building and shares public plaza space with a historic convent, gallery/event space, contemporary shopping center, and a collection of other mixed-use programs. Interconnect is a contemporary project that responds to its immediate urban context to provide connectivity to an existing network of pedestrian paths in the city center, echoing the belief that refugees should feel like they can belong in Madrid. Currently, Plaza de las Descalzas is an under-activated site in the middle of the pedestrian network that connects a total of 8 streets and 5 public plazas.*

Read more on [INTERCONNECT: Connecting Paths, Connecting Programs, Connecting People](#)

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### **NORTHERN NOMAD: DESIGNING TINY HOUSES TO TEST NEW LIVING HABITS**

28 August 2018

#WDOmember

**Carleton University**  
Canada

[wdo.org](http://wdo.org)

# NORTHERN NOMAD: DESIGNING TINY HOUSES TO TEST NEW LIVING HABITS

28 August 2018

#WDOmember

**Carleton University**  
Canada

The [Northern Nomad Project](#) is a net-zero energy tiny home designed and built by undergraduate engineering and architecture students from [Carleton University](#) in Ottawa (Canada). The project started as a 4th year engineering capstone project and was inspired by the growing popularity of the tiny house movement.

*As part of our Co-living series, we have asked team members Seungyeon Hong and Brigitte Martins to tell us about their objectives, their opinion on sustainable building and more generally, about the way design can make us live in better harmony with our planet.*

## Experimenting with sustainable design

Their project is meant to address two purposes: first, to test whether [net-zero energy](#) is possible on a small footprint on a mobile structure and learn about the real-life challenges of constructing such houses. Second, to develop a platform for building energy research by implementing state of the art equipment, instrumentation, monitoring and controls in the house.

**“For the experimentation of these new techniques, using a tiny house is easier - data and the lessons learned from it will then be applicable at the scale of a typical house to help improve the environment, our lifestyles, and the building industry for the betterment of our planet and our lives**

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### **A unique learning experience for design students**

The project is led from Carleton University [Community Design Lab](#) that focuses on developing tools and technologies which enable the development of net-zero energy communities. Students involved on the project have found many exciting opportunities in the areas of building integrated solar panels, assisted heating or cooling using air created by a roof vent, on-grid and off-grid solar and battery setup, heat recovery from batteries, on-site water generation, etc. It has also been a unique opportunity for students to learn through immersive learning – hands-on skills and knowledge are invaluable tools in the work force but are not often possible to obtain simply in a classroom setting.

## Tiny houses popularity and living more responsible lives

Back in 2007, the World Design Organization organized an [Interdesign](#) workshop in Toronto where 150 designers, students and practitioners had worked on the theme of “[Sustainable Housing and Water: Local and Global Challenges](#)”. Their objective was to experiment whether design could be built into a knowledge system that can address issues of global relevance, such as sustainable housing and water conservation and be applied appropriately to local situations.

In 2018, initiatives such as the [Ecological Living Module](#) from UN Environment and Yale University have been launched. This 22-square-meter “tiny house” demonstrates how to make modern living sustainable. The prototype was unveiled during the [UN High-Level Political Forum on Sustainable Development](#) in July 2018.

**“ Tiny houses have gained popularity in the public eye because they grant people financial and physical freedom, in apparent opposition to massive, mass produced and overpriced housing. It is an alternative lifestyle.**



Credit: [news.yale.edu](#)



**“ With the increased number of people concerned about sustainability, businesses and policymakers are already responding to these needs, and undoubtedly the natural course of action will see cities adapting and changing with policies consequently**

In Ottawa, a [bylaw](#) was passed in 2016 to allow coach houses to be constructed on existing residential properties when space allows for it. As of 2018, the city had issued six coach house permits. Another Carleton University graduate, [Ben Hayward](#) is building a prototype tiny house - a 185-square-foot futuristic structure.

**“ Even though tiny houses may not necessarily be a scalable solution for cities, there is an important concept at the core of the tiny house trend — minimalism.**

Indeed, tiny houses embody a mentality that less is more and that in the long run, this philosophy will improve one's lifestyle. It goes hand-in-hand with a concern for the environment.





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## ABOUT NORTHERN NOMAD

*Northern Nomad started as a 4th year engineering capstone project at Carleton University. The idea was inspired by the growing popularity of the tiny house movement, as it was noticed that most of the tiny houses were built in warm climate locations, where the weather stays relatively constant and sun exposure times during the winter isn't an issue. The Northern Nomad project will showcase a variety of smart home technologies and will be designed to optimize energy and water efficiency. This project will be designed with the goal of achieving the Living Build*

To support the project: To support the project:

<https://futurefunder.carleton.ca/project/northern-nomad-capstone-design-project/>

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**HY WILLIAM CHAN:  
DESIGNING CITIES FOR  
CO-LIVING**

28 August 2018

[wdo.org](http://wdo.org)

# HY WILLIAM CHAN: DESIGNING CITIES FOR CO-LIVING

28 August 2018

*HY William Chan is the project associate for Global Studio, [Center for Sustainable Urban Development](#) at Columbia University and is an urban designer/planner for [Cox Architecture](#) in Australia. Last year, William represented young designers at the WDO General Assembly in Turin, Italy, where he was involved in launching the World Design Agenda 2017-2019 and advocating for SDG 11 – Sustainable Cities and Communities. We asked him to share his vision of designing for better co-living in cities.*

## **How have your experiences of co-living in cities shaped your work in architecture and urban design?**

With more people living in cities than ever before, I believe it is essential to place social inclusion at the heart of co-living especially when it comes to urban equality and the right to access cities. Through living and working in Sydney, Milan and Berlin, as well as collaborating in informal settlements, I have seen the invigorating spirit of different people coming together, co-living in urban areas and building community through human-centered design.



***In order for us to live co-live together, we need to co-design together too.***

For me, architecture and urban design needs to be meaningful for people living together. And the most meaningful solutions come about when there is public participation in the design and planning of our cities – whether it is housing, public spaces, transport and infrastructure or governance. It enables people to become active agents in shaping, and sharing, their environment, unlocking the resourcefulness of place and providing design opportunities from equitable access. Put simply, in order for us to co-live together



*Image source: Cox Architecture*

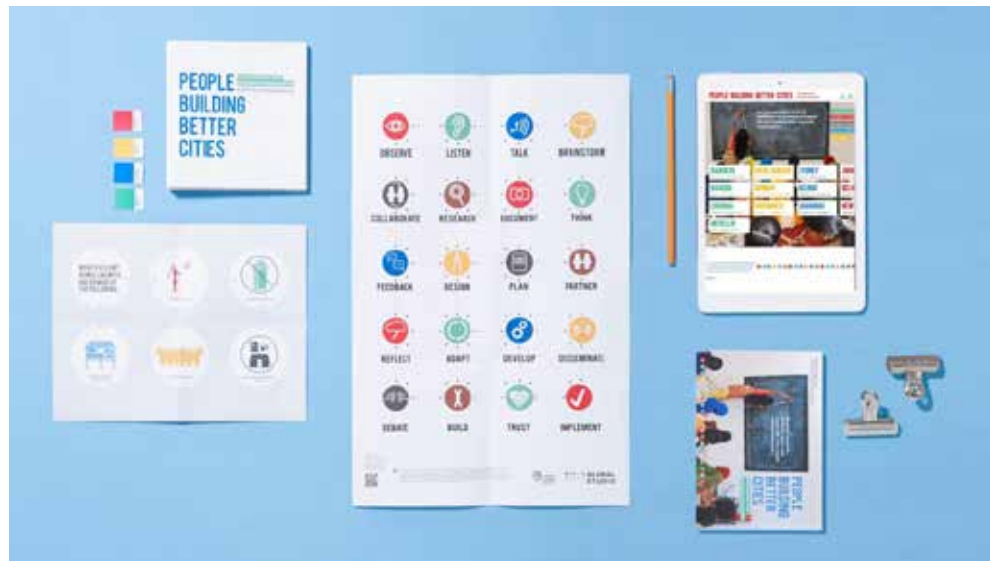
**How are your design projects with slum dwellers and refugees contributing to achieving SDG 11 and to better co-live together in urban areas?**

In the slums of Bhopal, India, I was involved in the new city master plan, which was designed with the participation of local residents to reconcile heritage with rapid urbanization. A bottleneck corridor in the Upper Lake divided the old town, a traditional Hindu area, with the new, predominantly Muslim area of the city. Our strategy explored 'knitting together' the fragmented cultural and built fabric. We designed new, publicly accessible walkways and plazas along the lake to create a more inclusive city center.

This project, alongside my work with township residents in South Africa, is showcased through Global Studio's [People Building Better Cities](#) initiative. The modular, open-source traveling exhibition advocates

innovative ideas on inclusive urban design and the global problems surrounding informal housing settlements. Since opening in 2012, it has traveled to 20 cities across five continents with a portfolio of localized design events and activities.

More recently, as a Fellow of the [World Innovation Summit for Education](#), I have been engaged with refugee communities in Athens, Greece, co-designing environments that foster innovation with a core emphasis on integration. Whether in a camp or urban setting, refugees co-live with their host communities and so social cohesion plays an important role towards livelihood creation. Through listening to and understanding the needs of users, child-friendly spaces were created in the city that brought local Greek youth with young refugees to learn and collaborate together as equals. Designing for dignity in these contexts becomes the most central driver to delivering cities that are socially sustainable.



## How do you think designers can help accelerate actions towards the achievement of the SDGs?

The key for architects and urban designers to contribute towards the progress on the SDGs is to collaborate in a multidisciplinary manner with others from diverse professions. The SDGs aim to end the world's most wicked problems and this can only be achieved by breaking boundaries and stepping outside of our comfort zone.

An example of this is the award-winning Brisbane Ferry Terminals which were redesigned by Cox Architecture and [Aurecon](#) in my hometown, following the 2011 flooding of the city's river. This partnership harnessed ingenuity in architecture and engineering to generate an innovative solution that significantly shifted away from previous design conventions. It resulted in the world's first flood-resistant ferry infrastructure. The project is a testament to how our cities can co-live with the natural environment through collaboratively designing for resilience.

Watch [\*Think possible: The story about the award-winning Brisbane Ferry Terminals\*](#)





## ABOUT

### HY WILLIAM CHAN

*HY William Chan is the project associate for Global Studio, [Center for Sustainable Urban Development](#) at Columbia University and is an urban designer/planner for [Cox Architecture](#) in Australia. Last year, William represented young designers at the WDO General Assembly in Turin, Italy, where he was involved in launching the World Design Agenda 2017-2019 and advocating for SDG 11 – Sustainable Cities and Communities.*

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