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Unfolding

Education and Design for Social Innovation

Unfolding

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Unfolding

CENTRO was founded as an innovative educational project that created a new model for creative professionalization in Mexico. In 2004, we began developing undergraduate programs not offered anywhere else in the country, in order to open up possibilities for those seeking a different type of education focused on creativity and entrepreneurship. Demand grew and our academic program expanded to include seven undergraduate degree courses and international collaborations. Over time, CENTRO graduates have gained recognition within the creative industries.

With our rapid growth came the challenge of a large-scale expansion. The construction of a new campus proved yet again that CENTRO has innovation in its DNA: the chosen location was in a complex but strategic location in Mexico City, and the architecture reflected the institution's specific needs while also incorporating sustainability as one of its core values. Inaugurated in 2015, ours became the first university campus in Mexico to be awarded LEED Platinum certification. We sought to integrate this approach into all our work, in the understanding that making a positive impact on the immediate surroundings formed a part of this sustainability.

This expansion enabled us to continue broadening our portfolio of creative education programs, and we unveiled seven new master's degrees and thirteen graduate certifications. Our goal was to remain at the cutting edge, make constant improvements, and offer continuous education in a dynamic industry.

Fifteen years on, CENTRO has secured its reputation as a key player within the world of creative education in Mexico. We have achieved this through constant innovation in pedagogical models and educational programs that incorporate values such as entrepreneurship, sustainability, and social impact. We know that the future of creative education is in our hands and therefore every day we set new challenges that transform how we teach, learn, and share knowledge.

CENTRO is looking for ways to make creative industries more consciously and actively involved in bringing about positive social transformations. Our far-reaching impact in this area can be seen in the growth of our cross-curricular areas—such as the CIEC research department (the first of its kind in Mexico to be accredited by the government's science and technology council, CONACYT), the Social Design Hub, the country's first DESIS Lab, the creation of STEAM Lab and its intervention across five areas of essential knowledge for an integral education (Science, Technology, Entrepreneurship, Arts-Creativity & Innovation, Meaning).

Our first fifteen years have helped us to focus on CENTRO's future, building on the institution's most impressive achievements in order to prepare for our next stage. With its present revealed by its past, CENTRO strides toward the future of creative education with social impact.

Gina Diez Barroso | **President**

The future of work has become a dominant topic in the media, at conferences, in research, and within the educational community. The speed and reach of technological progress, the expansion of the workforce, job security, quality, equality and remote, flexible work scenarios are the main themes that shape the discussion regarding what work will look like in the future and how to best prepare for it.

As a result, educational institutions on all levels have been under pressure to focus teaching on competences that appear to facilitate professional development and adaption within the digitalized environment of the future. Also, they have been urged to embrace abilities that are perceived as complimentary, and that have the potential to catalyze technology and innovation, above all creativity and entrepreneurial skills.

Recently, however, in the context of a seemingly accelerated state of crises on many levels all over the world, the discussion is shifting towards more fundamental issues: What should we be working on in the future? The challenges of demographic shifts, climate change, social inequality and injustice, resource management, emergency response, urbanization, human-machine interaction, populist movements, data monopolization and manipulation as well as other social media phenomena are increasing in complexity and impact. Thus it is imperative that education addresses these issues and educational institutions and their communities must define how they will contribute to solving them.

At CENTRO we believe that designers, film-makers, architects, communicators, and other creative professionals are well prepared to understand, organize, visualize, and clarify the core aspects of the problems we are facing. They are used to working in participatory, cross-disciplinary, and collaborative environments and they know how to connect and resonate with diverse audiences. Their critical, unbiased, and creative questioning can bring new insights and help rephrase the problem in order to imagine and design meaningful and viable answers.

However, as an institution we not only have the obligation to support the development of the necessary skills but, more importantly, we must further a sense of cause, responsibility, and dedication in our community that leads us away from short, responsive endeavors towards a long term commitment to work for a desirable and sustainable common future.

This venture is at the core of CENTRO's mission, faculty, and curricula. But it is not an isolated effort: the dialogues, examples, best practices, reflections, and projects that are documented in *Unfolding,* the publication by CENTRO's Social Design Hub, show the growing impact and the evolving possibilities of joining forces within and beyond the educational sector, both nationally and internationally. Together we hope to move forward on the most pressing issues and also contribute to a relevant and purposeful future of work.

Kerstin Scheuch | **Director General**

Students who are best prepared for the future are change agents. They can have a positive impact on their surroundings, influence the future, understand others' intentions, actions and feelings, and anticipate the short and long-term consequences of what they do.

The Future of Education and Skills 2030, 2018

Social impact used to be an alternative discourse in education and was often considered a charitable initiative or a handout, but in the past decade it has become fundamental in the design of pedagogical models, academic courses, projects, workshops, and laboratories that call for new ways of thinking, educating, and building different futures. From the perspective of creative education, this paradigm shift introduces values, soft skills and power skills, systemic thinking, and people-centered design—all of which generate social value as something inherent in professionals' education and careers.

As its name suggests, *Unfolding* looks at experiences and learning to reveal new pathways in creative education, in relation to innovation and social impact. The book is divided into five chapters that address three essential and often interconnected interests: sharing a selection of CENTRO's Social Design Hub projects; exploring the work and perspectives of change agents around the world who are transforming educational and social systems; and giving visibility to innovative and context-specific Mexican initiatives that propose different ways of understanding and transforming reality.

In the chapters focusing on CENTRO's projects, this book reveals the university's Social Design Hub as a space created for the reflection, action, and education of creative professionals aware of their effects and surroundings. It then reviews Design Under Pressure, the international workshop organized in collaboration with Wanted Design NY a year after the earthquake of September 19, 2017, dealing with design for emergencies and producing a corresponding manifesto. Finally, it provides a brief recap of Concordia, an international symposium on social impact and education that was held in 2018.

The other chapters offer a broader perspective, with the Conversations being a particular driving force behind this project. These twelve dialogues took place in 2018 and 2019 and offer a variety of points of view and scenarios showing specific aspects of local projects, while at the same time drawing parallels to global issues. Our colleagues share their experiences in Berlin, Boston, Dubai, Mexico City, New York, Rio de Janeiro, Santiago de Chile, Singapore, Talca, and elsewhere around the world, to offer different approaches to creative education and its challenges. These discussions raise relevant topics of discussion ranging from research, management, and collaboration models to impact assessment and future professional pathways.

A selection of social innovation initiatives in Mexico are gathered in the chapter Learning by Doing: Social Innovation Case Studies. Regardless of their purpose—public space recovery, rainwater collection, self-construction, education, grassroots activism, or social entrepreneurship—these projects all have the same aim of reimagining contexts in order to respond to complex challenges. Despite their obvious differences, they all share processes that emphasize the importance of horizontal learning, developing skills, making connections, empowering citizens, and encouraging participation.

Unfolding: Education and Design for Social Innovation is an effort to join forces and plural perspectives in order to stimulate reflexion on the urgent, necessary, and positive social impact of education. We dedicate this book to those who have shared their knowledge, experience, and trust, providing inspiration with their perseverance and commitment. This publication is also for everyone whose often behind-the-scenes work explores different ways of educating for change and to facilitate the co-creation of more conscious, sustainable, and fair conditions for everyone.

Paulina Cornejo

Social Design Hub

This chapter describes the background of CENTRO's Social Design Hub, and provides information about its focus and the projects carried out with students, staff, and members of the local community. It also includes a brief recap of Hitos, a research and exhibition initiative that analyzed social impact projects by CENTRO students, and that identified fundamental skills developed as a result. It concludes with an overview of the Hub's work, according to three core areas that have helped measure its impact: learning, action, and participation.

Social Design Hub

CENTRO's Social Design Hub is a cross-curricular area that connects faculty members, students, staff, and local residents to design social impact projects. The Hub was set up as part of our commitment to heightening awareness among creative professionals about their potential to effect positive social change. It also responded to the increasing number of student social innovation projects and the relocation of the university campus to the Colonia América, a complex, challenging neighborhood.

Established as an open and experimental platform in 2015, the Social Design Hub supports people-centered, context-based, and sustainable research and design. The model goes beyond classroom teaching and encourages students to apply their skills and to engage fully with their (ambiguous and uncertain) social setting in order to understand it from various urban, economic, social, and cultural perspectives. This integral and inclusive approach places a special emphasis on interactions, conversations, and exchanges, combined with a willingness to learn from experience.

The outcome has led to undergraduate, postgraduate, and community service projects. These are designed as creative responses to previously-identified challenges and needs, mainly in CENTRO's local area, with the aim of providing mutual benefits. Solutions range from designing and implementing creative training workshops and activities, sports tournaments, and projects supporting local businesses, to strategies and solutions promoting the campus's sustainability, neighborhood futures workshops, and thesis projects with a focus on making a positive social impact.

In 2018, CENTRO's Social Design Hub became Mexico's first member of DESIS, an international network of laboratories focusing on design for social innovation and sustainability. Four years on, the Hub has made an impact by improving the quality of education for creative professionals, citizens, and social entrepreneurs. With its successes and failures, it has proved that creativity and design can generate new conversations and situations where positive change is both possible and probable.

"Hitos": Insights into students' socially-oriented projects

In 2014, while setting up the Social Design Hub, we launched a collaborative study with CENTRO's research department—the Centro de Investigación en Economía Creativa (CIEC)—to identify socially-oriented theses, class assignments, or special projects. This process underlined the increasing relevance of certain themes and the potential impact of courses, faculty members, and experiences on their development.

Our research led to "Hitos" (Milestones), an exhibition inaugurated in CENTRO in September 2016, featuring seventy-seven student projects created since 2007 that proposed solutions for issues relating to housing, sustainability, water, health, disability, universal access, food security, and mobility.

The projects were classified according to seven identified core skills: social intelligence, narrative connection, business creation, critical analysis, procedural thinking, collaborative work, and systemic vision. These were analyzed in light of reports and studies on employability, sustainable development for the future (the IFTF's Future Work Skills and the UN's 2030 Agenda for Sustainable Development), and skills and competencies for the 21st century (Partnership for 21st Century Skills).

The exhibition gave visibility to the solutions being researched by students and displayed examples of theses and research projects that had become social businesses or organizations. But above all, it helped start a conversation among academics and students about the importance of moving beyond a culture of charitable initiatives and hand-outs, in order to make positive social impact an integral part of different professions.

The "Hitos" exhibition's findings once again showed the importance of strengthening cross-curricular academic content and experiences focused on social design in the education of creative professionals.

Urban Mobility

Wanted Design

Supra Recycling for Interior Design

Friendly Toolkit

Kinder Lab Masisa

Amboo

Cihuame

Fragua

Maternal Mortality

Collaborative Work

3M

Traditions

Reinterpretation of Mexican Talavera

Urban Garden CENTRO

M

CANUTO

Wrapidito

Canto de la Selva

Zona C | Pfizer Neuropathic Pain

Forest of Falling Trees

Urban Garden

Entrepreneurship

Der

Huéhuetl

Functional Fashion Workshop

Talentum

Baöb

Tip Furniture

Deriva MX

Liisa

Remolacha

Sisi

Restorative Concrete

REC: Shoes

Alba Model

Systemic Vision

77 Socially oriented projects developed at CENTRO between 2007 and 2016, classified by seven key skills.

Mobility: Cycling

ZO Coop.

Mobility: Lines

Drawing Steps

Synesthesia

3D×100

Triggering Harmony

Mobility: Pedestrian Bridges

Procedural Thinking

Fear of Flying

Create4Change

Storytelling

I Don't Want to be a Target

Cellular Breathing

Zona C | Pfizer Alzheimer

Forgotten

Zona C | Pfizer Smoking

ural City

RTB Childhood Retinoblastoma

Critical Thinking

Human Rights and Cinema

Colonias

Zona C | Pfizer Childhood Obesity

Llavero

Design for Good and Education

Coffee Goes in a Mug

Zona C | Pfizer Squizophrenia

ive

Children with Cancer Mark Foundation

Take It Personally

Feeding System for Dementia Patients

Zona C | Pfizer Oncology

45 Degrees in the Shade

Cinema and The City

Zona C | Pfizer Fibromyalgia

Social Intelligence

Toys for Visually Impaired Children

Vuela Foundation

Salute

Champions

Dayati A.C.

FLIP

Space kit

From South to North

We Are Many Others

Training Facility for the Mentally Impaired

Co-design and collective impact: from projects to actions

The relocation of CENTRO's campus to Colonia América turned the university into a new player among the constellation of institutions and organizations operating in the area, some of which run programs responding to local needs. Despite their contribution, many of their strategies are often imposed reactively or as programs that fail to achieve their maximum potential due to their lack of a comprehensive vision.

The Social Design Hub's organic and experimental approach has allowed it to explore innovative partnerships, by seeking participation and a deep understanding of context. Collaboration among local residents and stakeholders has helped in the identification of challenges and needs, and in the co-design of projects. The resulting workshops and activities have helped build trust and create networks between CENTRO, various organizations, and local residents, as well as among the neighbors themselves. This has helped neutralize participants' mutually polarized and stigmatized perceptions.

The many activities and experiences co-designed through the Hub with—and for the benefit of—the community are offered as programs open to CENTRO's students, staff, and local residents. These are as broad and diverse as the interests and creative challenges of participants themselves. Notable examples include a number of workshops such as regular DIY urban farming, filmmaking using smartphones and the city as resources, pattern-designing and clothes-making, book-binding, fabric manipulation techniques, and toy-making at a Fablab; open football tournaments, entrepreneurship programs for local businesses, and speculative design sessions (such as Time Capsule and Design Under Pressure) that help to imagine innovative solutions for local challenges. Together with other local organizations, the Hub organizes a number of campaigns, services, and workshops focusing on health and human-development issues.

From an educational perspective, the implementation of these initiatives makes an impact on developing better professionals and a more committed and organized community. Outcomes also include the support for institutional and individual consumption at a local level, as well as the design of projects that support it. Students design directories to draw other students' attention to the existence of local businesses and help train CENTRO's neighbors to develop or professionalize their trades; residents from the area provide services to CENTRO (catering and the sale of supplies) or contribute to student projects (carpentry, ironworking, sewing, printing). This gives a small sample of the gradual process of empowerment and collective impact made possible by taking the context into account.

CENTRO and its surrounding area

The local neighborhood is particularly important for CENTRO. It is divided into a primary and a secondary area, according to the proximity to the campus. Local residents are considered neighbors and enjoy priority access to the Hub's activities, as well as grants and assistance for enrolment on academic courses.

Primary (in the Miguel Hidalgo district):
– América
– Daniel Garza
– 16 de Septiembre
– Ampliación Daniel Garza (as far as Periférico)

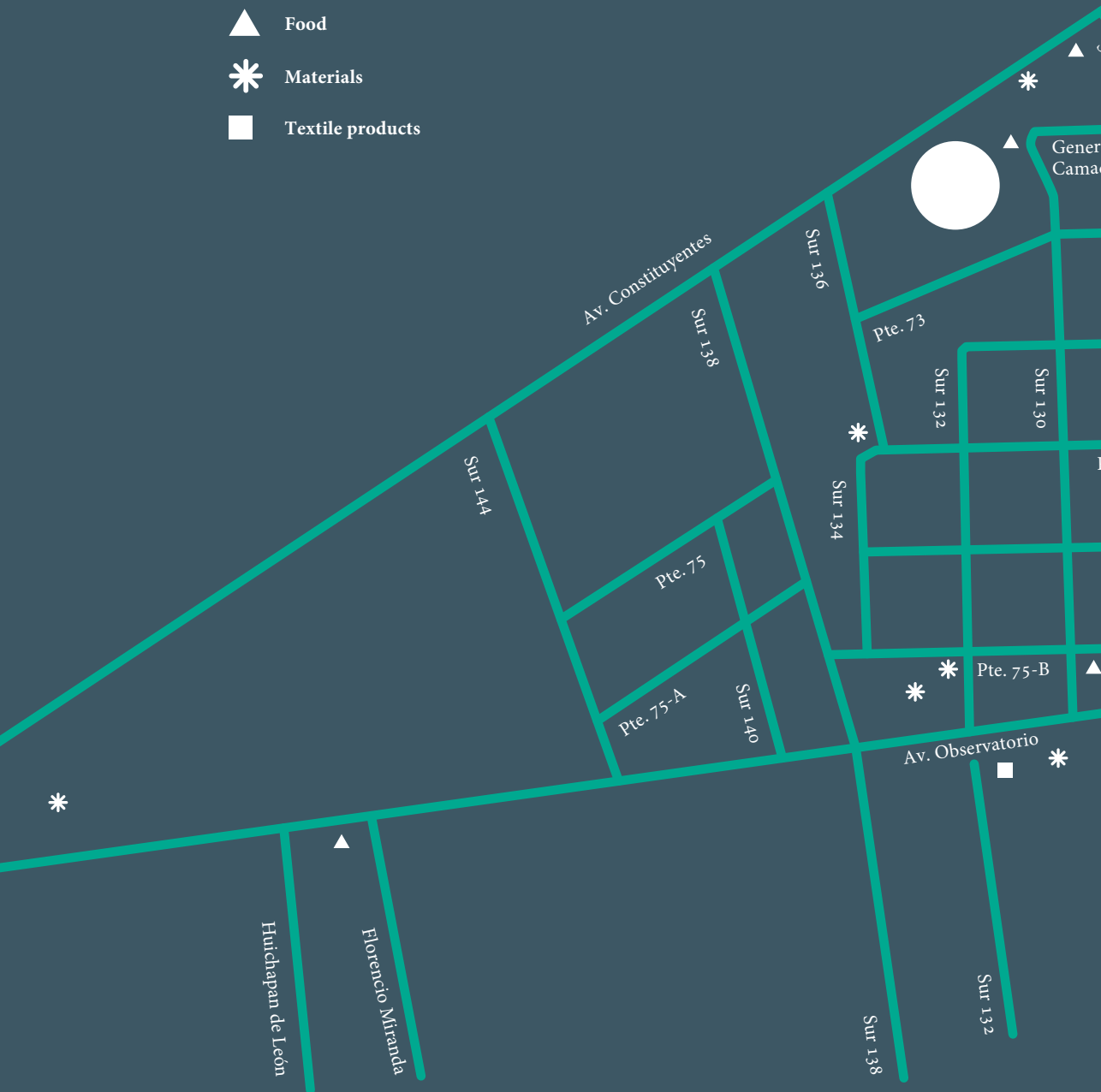**Secondary (in the Álvaro Obregón district):**
– Cove
– Belén de las Flores
– Las Américas
– Observatorio (as far as Periférico)

What do we measure and how?

Measuring impact is a complex and widely-debated challenge in social design and innovation projects. It can take years to be sure whether an initiative has been effective—and sometimes it can be impossible in the absence of properly collected, identified, and systematized data. From the outset, the Social Design Hub has worked on identifying key themes and on measuring the impact of implemented initiatives in order to observe progress, recognize successes, and learn from failures.

To address this issue, the Hub follows up on three essential, closely-interconnected areas: learning, actions, and participation. Information is gathered through surveys, interviews, working groups, records of activities, project supervision, and interaction with local providers. It is then classified according to nine qualitative and quantitative indicators. The method also takes into account the development of participants' social, technical, and creative skills.

Legend

● CENTRO

◯ América Market

▲ Food

✳ Materials

■ Textile products

Av. Constituyentes

Sur 136

Sur 138

Sur 144

Sur 132

Sur 130

Sur 134

Pte. 73

Pte. 75

Pte. 75-A

Sur 140

Pte. 75-B

Av. Observatorio

Gener...
Cama...

Huichapan de León

Florencio Miranda

Sur 138

Sur 132

Sur 126

Sur 128-A

al
cho

Sur 128

Pte. 73

Sur 126

Pte. 73-A

Camino de los toros

Pte. 75

Pte. 75-A

Barranquilla

Cnel. Letechipia

Cmte. Blanquet

Ex-arzobispado

Sóstenes
Rocha

Sur 120-A

Sur 116

Sur 114

Sur 122

Sur 124

Sur 126

Sur 126-A

Sur 128

Neighborhood goods and services map developed by CENTRO's students

Social Design Hub Indicators
(Records from March 2015 to March 2019)

Students who have taken Social Innovation and Design courses linked to the Social Design Hub	
923 Undergraduate	**29** Master's

Teachers/courses forming a part of Social Design Hub projects		
14 Undergraduate	**4** Master's	**1** Graduate Certificate

Completed social theses	Students who have completed their community service at the Hub
83	**57**

27	Continuous programs (curricular and extracurricular) designed and implemented through the Social Design Hub

6	Services or regular institutional use of local providers (neighbors' catering services, buying fruit at the local market, etc.)

Enrollment figures for activities/workshops

434
Local residents

331
CENTRO students and staff

175
Talentum CIDE-CENTRO joint program for talented, underprivileged female high-school students

108
External

Data collected from 177 participants in various workshops since 2016

100%
Met new people

95%
Changed their perception positively about other community groups

93%
Do not participate in other community activities

70%
Female

30% Local residents who turn up usually continue participating in activities for a period of two years.

Collaborating organizations and institutions

Local community
ABC – Clínica Brimex Hospital
Casa del Adulto Mayor
CONFE
Deportivo Constituyentes
Faro del Saber Carmen Serdán
Fábrica de Tacubaya Fablab
La Gaviota Kindergarten
Nuestra Señora de Guadalupe Church

External community
DESIS Network
FUCAM
INE
Interdisciplinary Program of Education Policy and Practices (PIPE - CIDE)
World Design Capital Mexico City 2018

Undergraduate social theses and projects at CENTRO	
2007 - 2016	**77**
2016 - 2018	**130**

From the **Learning** perspective, the results suggest that the creation of the Social Design Hub, course design, and academic content, as well as collaboration helped increase the number of social projects and theses. In terms of **Action**, the possibility of experiencing contexts and interacting directly with users, as well as implementing the designed projects, has led to a development of social and creative skills, and to an understanding about how these abilities can be applied to projects with added social value. **Participation** has sought to provided information about the number of people involved and also to collect feedback that is essential to inform new actions and to fine-tune existing ones.

In the future, the Social Design Hub is looking to systematize other findings that help improve our understanding of context, challenges, and opportunities. This will provide a means of obtaining useful data and experiences for the best decision-making, without it becoming a predictable element that may impede open innovation processes.

The work so far has allowed participants to discover the transformative power of their ideas. The Hub's methodology also develops talent and trains professionals who do not merely replicate existing solutions but become agents of change and amplifiers, able to respond proactively to the complexity of the context in which they are working. ■

Conversations: Creative Minds and Today's Issues

This section presents twelve conversations held over the course of six months (from October 2018 to May 2019) between CENTRO collaborators and specialists from around the world. The idea is to bring together different perspectives for a broader discussion about education and social impact, which tends to focus on North American and European clusters.

The interviews explore a wide range of issues and experiences linked to social design and innovation, from the perspectives of industrial design, fashion, business development, architecture, visual communication, and technology, among other areas. Despite the obvious differences in strategies and geographical locations, the dialogues suggest common interests and concerns, while offering a variety of responses designed around local contexts and communities.

Teaching as Activism: Encouraging the Unexpected

**A conversation between
Nik Hafermaas & Kerstin Scheuch**

With a focus on design activism and its connection to design education, this conversation reflects on the institution's role in developing experimental initiatives, collaboration across disciplines, and the creation of transformational learning situations—such as the Berlin Studio project, a Test Lab that encourages students to work in unusual circumstances.

Nik Hafermaas is the executive director of ArtCenter's Berlin satellite studio and member of TRIAD creative agency. Kerstin Scheuch is the director general of CENTRO.

K.S. **Nik, I have been able to follow your work for some time. We were together at the Aspen AIGA Design Summit, where you were doing the "You Orleans" project, and then we invited you to CENTRO for a student workshop on HIV communication for pre-teens. And last September we worked together on Design Under Pressure, the CENTRO Mexico City Design World Capital and Wanted Design initiative, regarding the designer's role in emergencies and disaster response. Also, you are leading an Art Center satellite in Berlin and throughout your time as chair of Undergraduate and Graduate Graphic Design at Art Center you were deeply involved with many of the Designmatters initiatives.**

Observing your roles, which encompass educator, designer, artist, project leader, and teacher, it seems to me that you are often taking an activist approach, in the sense that you develop a strong public stance with the students, projects that demand a broad set of changes and aim at a call to action to impact or even sway public opinion. There is a lot of questioning of the status quo, community building, bold communication design... Can you talk about that?

N.H. Activism comes in many forms. I respect political activists, but I would never consider myself one. So, instead, we can talk about being a design activist, which I do not think is particularly special or grand, because, if you look at it, every child up to the age of eight is a design activist. What does a child do? A child doesn't know all the hidden rules of the world and it doesn't know how to "properly" use all the tools…but it has unbound fantasy and questions everything by default. That creative questioning turns every child into a design activist. The problem that we have today is that we unlearn the power of questioning everything and of looking at things in a very visceral or emotional way. I saw this in my own children: up to a certain age they draw fantastic stuff, and then they go to school and learn that "a tree has to look like this, a sun has to look like that," and down the drain goes a great level of originality, down the drain goes a very personal, bold and unafraid expression, down goes fantastic imagination where a matchbox can be a car or a train or a building. We unlearn imaginative connections, and then you turn 18 and you pay a lot of tuition to go to a design school to learn even more rules, instead of going back to the core of the design activist that you used to be.

> The problem that we have today is that we unlearn the power of questioning everything and of looking at things in a very visceral or emotional way

So in a way you are saying we should return to a more humble approach, making fewer assumptions, and instead looking and observing with free imagination?

And as educators we should give a license to do that. I think my role as an educator is to create circumstances under which the coolest shit can happen.

Can you talk a bit about the Berlin project? It's an example of unusual circumstances that you have created.

You see, the similarity between CENTRO University and Art Center College of Design is that they are both very sophisticated schools that operate on the highest level of professional art and design education. They have fantastic facilities, they are difficult to get into, the students work incredibly hard and learn the most refined ways of designing. But this comes with a downside: there is a danger that it will hinder the inner design activist.

The Berlin satellite studio, which I set up many years ago, uses the discipline and the skills that you learn in school and applies them in a completely different context.

What we have in Berlin is not a classroom. What the students do there—even though they get a full academic semester credit—is not school. It works more like a creative studio or pop-up creative agency that makes use of an environment that most of the participants have never entered before. To start with, quite a few of the American students that join the studio apply for a passport for the first time in their lives. So, they arrive in a completely new culture: different language, food, mentality, weather, architecture…(when they are from L.A., which is kind of an uncity, they also have the contrast of a truly urban environment). And then they are also not in school. The creative studio extends beyond the walls of the space that Art Center has rented; it's actually the city of Berlin. We call it "Test Lab Berlin," the city as an inspiration and a cultural challenge to the young creators, and a test-bed for their ideas.

The projects are very different: sometimes they are sponsored by big corporations, who want to explore something about a specific demographic. Johnson & Johnson wanted to find out how urban millennials relate to health and wellness, and, at the end of the day, to their products. So we turned our students into scouts of different

My role as an educator is to create circumstances under which the coolest shit can happen

areas of Berlin, different demographics, which we called tribes. Student teams inserted themselves into the music scene; the art activism scene, the fashion scene, and the "bodymod" scene: all the people that modify their bodies with tattoos and piercings. We said to them, "you're not students any longer; become part of them." So as a student you take your own body, your own physicality, your own cultural specificities, and you insert yourself and become part of the tribe. If you are exploring the music scene, you are required to go out to the club on Friday night and not come back until Tuesday. We don't care what you do there as long as you document it well. This provides the students with absolutely authentic insights that a corporation could never gain, no matter how much money they spend on market research. Insights as banal and yet profound that the bodymod tribe use diaper cream on their fresh tattoos.

The authentic part is interesting. So, even if some of these studio projects are commercial, they still have a social research aspect to them?

They have an experiential aspect: you experience yourself as a young person, as an art and design student, in a different way. You experience different aspects of yourself by leaving your comfort zone and inserting yourself in an unknown situation. You may find out that the tools that you have learned at school serve as survival tools and go way beyond doing a nice portfolio.

One of the most extreme projects we've done was Berlin Unplugged. I was thinking: What is the scariest thing you can throw at a millennial? Very easy: a digital Ramadan. So we made a contract with the 16 participating students that stipulated that they would not be able to use the internet, smartphone, laptop or any other electronic device. The idea was: How do you survive in a foreign urban environment without digital helpers? When you don't have a filter that sits between you and your surroundings, if you want to know directions, you have to ask someone; if you want to send a text message to someone, you write a postcard; if you want to take a photo, go get a Polaroid camera; if you want to write a text, get an old typewriter. And that's exactly what the students did. And interestingly enough, they learned completely alternative ways of studying a place. So they did various low-tech techniques that brought out completely new impressions of the city. For example, they went to old buildings and took sheets of paper and, through rubbings on house walls and building facades, brought out bullet holes from the Second World War, and other layers and textures of the city. It was unplugged archaeology—something rare in the age of smart digital devices.

> You experience different aspects of yourself by leaving your comfort zone and inserting yourself in an unknown situation

So we're talking about activism in the sense of being authentic and truly connecting and immersing yourself in the unknown. What you are doing is waking up all their senses. Not only by putting them into a foreign context and adding all sorts of challenges, but by taking away the filter of technology.

The act of teaching is activism. I try to activate these incredibly smart, talented and hard-working students. I want them to try different muscles that they did not even know they had. It's about being a catalyst, a friend, a colleague, and about trying to empower them. They say, "I thought this was going to be horrible, and now I see that I can not only survive but can actually thrive." Because after six weeks, which was the halfway point of the Unplugged project, we told them "OK, Ramadan is over, you can have your smartphone back." Most of them said, "no, we're going to do the next six weeks unplugged as well because we are taking pride in that now."

The act of teaching is activism

All these unusual experiences help your students to connect deeper and arrive at unexpected insights. One thing that caught my attention is that the students realized that what they had learned at design school, the design tools, is actually useful to "survive" and even thrive in difficult situations. What specific tools that they have learned in design school help them to better understand and document their surroundings? What is their role in projects like these? As designers, how can they really make a difference?

In schools like CENTRO University and ArtCenter, you learn how to make things. You learn the tools of visual persuasion, how to use typography, color, imagery. You learn how to make and you also learn why you are making things, and where all of this is coming from. In studio projects, within the confines of the school, your projects will be judged by other students, faculty, and maybe some guests (project sponsors or designers). This prepares you. However, it's completely different if you create something that you actually post in a plaza in Berlin and see how long it stays up on the wall, how long it is effective, before someone tears it down. Students release their inner activist and they rely on the wonderful skills they learned. They will say: "ok, I have a campaign idea, I'm going to cut a stencil, get some spray paint, and I'm going to see how long I can do this before someone tells me to stop." Skills cannot really be tested within the academic bubble of like-minded people; a highly refined echo chamber where we are often only talking to other designers and where we're trying to out-design each other.

Skills cannot really be tested within the academic bubble of like-minded people

My next question is about time, because I have observed you only in very short projects and I know that the Berlin lab is anywhere between 12 and 14 weeks. How do you see that in terms of the students' involvement? Do you create something ongoing? How much depth can you get in 14 weeks? What do students take away in regard to long-term involvement, even in terms of their position as a designer or a person who is developing a personal cause? I am wondering, in terms of continuity and long-lasting impact, do you think that it exists? Should it exist at this stage?

I think these projects are most gratifying both to teach and also to experience for the students when there is a very high level of intensity. And sometimes you get the highest level of intensity when you say "here's a challenge, you've got 24 hours to save the world." And then the clock is ticking, and we can all survive one night without sleep (not too many in a row), and this artificial shortening of something makes the sparks fly, and that's great. When you go into a completely different environment, anything between six and twelve weeks is a very good time because you still have fresh eyes with which you see the situation, you are not getting too used to it. You are still curious about the place, you still don't know all the rules, which is also great. You are aware that you do not know and you are eager to learn.

Ignorance and respect in equal measure are actually very effective if you want to challenge or change the status quo

In my own experience, also as a professional designer, I have found that a mixture between a certain amount of ignorance and respect works very well. I don't go into a project like a woodcutter and completely insensitive to what is going on, but on the other hand, if I know all the rules, I am limited in my expression, both in the playfulness and the audacity. So ignorance and respect in equal measure are actually very effective if you want to challenge or change the status quo.

I think I would not claim that projects have a long-term impact. However, when you look at it as an educator, or if you remember your own life when you have had transformational learning situations, which were your pivotal experiences? For me, whether it was in art school, or before or afterwards, these are mostly decisive moments that I recall vividly. I think what we can do as educators is trying to help create these moments, or at least bring about the circumstances in which these moments can happen. If a student has experienced a moment like that, that's a very sustainable thing because it stays with them for the rest of their lives. So these moments or inspirations or insights are usually about "oh, I didn't know I could do this, but I pulled it off." That is the stuff that reverberates for very long, that is highly sustainable. For example, that huge billboard intervention that we were working on at CENTRO during Design Under Pressure

only lasted for two days before the authorities took it down. However, I think, for the students who were in that project, they had no idea they could do that, that it was even possible. That kind of insight is a permanent positive change in these young creators.

I agree. I think that is a fantastic way of putting it. And the continuum is brought about by the institutions, the networks, and the schools that make these projects possible and document them and support them. I first met you when I was working with Erica Clark and Richard Koshalek, and they were just setting up "Designmatters," and I took that idea to CENTRO University and we built the Social Design Hub. And all these organizations from the DESIS Lab Network to Cumulus have an interest in the continuum of the projects and the learning we can extract from them. What do you think is their role? What should they do?

I can honestly say that I think to be an effective design activist, you have to have at least a pirate patch or a pirate arm or a little pirate ship. If you're trying to institutionalize the raw energy of activism, it is going to be very hard. I am not saying that it cannot be done but it always feels less nimble, and somehow compromised, and it does not feel as authentic.

If you're trying to institutionalize the raw energy of activism, it is going to be very hard

I have to push back a little bit because I am also representing an institution. For example, to set up the Berlin lab without ArtCenter would have been complicated…

There would have been no reason to do it without Art Center, I understand that. But if you look at the genesis of Designmatters, if Richard Koshalek had said: "Dear Erica, try this new thing, but you have to do this all within the confines of our institution." That means you have to create consensus with everyone who is in the administration; it has to adhere to all the basic rules of setting up a project. It would never have happened this way. It's like that joke where a horse is built by a committee and it becomes a camel. I think the genius back then was for the president to have trust in an individual and say "in order for you to be successful with it, we are going to leave you alone. I am actually going to protect you from the apparatus of the institution in this little tiny satellite and let you grow. You do not have to report or go to a million meetings, and you do not have to create consensus. We're just going to see: fail fast, fail early, be small, nimble, and grow something." After this thing took off, then it

made sense to say, "now we're bringing the satellite in. Now we are actually bringing it into the core of the school and we will make this thinking that was established in Designmatters part of the core of our mission."

What you just described is a really intriguing process because it basically says that for a project to start, it needs an institution, a trusting parent, letting you run and be free. And then, as things grow, you can harvest the benefits and try to extract the learning and convey it to a wider audience. In the beginning, it needs freedom to become something.

Exactly. And that is an analogy that works for individuals as well, you have to give people the freedom to become something, and then you can get established and you can be roped in and become part of the core. If you try to start at the center of it, you are not going to go anywhere.

This freedom often involves the possibility to work with other people. You have already mentioned how the students insert themselves in different communities. I'm thinking, not just in terms of different cultural groups, but also in terms of working with other professionals. What is your experience in working with professionals from other areas? How does that impact student projects? How much is it part of your planning?

The best and most rewarding way to work is always with people who are smarter than you. Particularly in fields that one has no idea even existed. But to be effective one has to be able to communicate across disciplines. It's really useful for the students to learn to express themselves in a language that allows them to talk with someone who is not from their field. That is something you cannot learn too early and it's a success factor for any creative professional today. The superstar creative individual—there are still a couple in the art scene, and a few designers—really smells of the nineties to me. Nowadays, the creative challenges, or the challenges that you can answer with creativity, have become so complex, immense, and ambivalent that a single person cannot possibly tackle them. Nor can a single field of knowledge. So there's an acute need to work with a very wide range of different professionals.

The best and most rewarding way to work is always with people who are smarter than you

What does the designer bring to the table? How does he integrate?

A great example is a project we did with Bruce Sterling, the science fiction author and futurist, who has also become my friend. He has a very broad view about emerging technology, about society, about the history of cyberpunk, and the history of virtually the last fifty years of people imagining the future. He knows about politics, technology, socio-economics, cultural roots, different tribes, the weirdest inventions that have not really gone mainstream yet. But what he does not have are visualization skills and he needs our young designers to help him visualize the future and make it as convincing as possible. He calls it "design fiction," which I love (it is like design, but fictional at the same time). In this project we brought him in to inspire and co-teach the students, but it ended up being a more symbiotic relationship where he learned as much from the students as the students learn from him.

> The superstar creative individual—there are still a couple in the art scene, and a few designers—really smells of the nineties to me

In a way, the designers make his work accessible.

Exactly, they translate it. So he says, "in the future, you will be able to grow replacement organs." We've all read about it, but what about the legislation? What are the moral restrictions on having people do that officially? There's going to be a black market. So how does someone on the black market for re-grown organs advertise? Where would you advertise that, if it's not legal? Would you go to the dark web? How would you talk about the benefits of your organs versus the other guy's organs? And so on. So the designers' job is to really give realism to these visions, these utopias, and dystopias. In order for people to take these issues seriously, and make changes to legislation, you have to visualize them in a quality that stands up to the visual standards that are around us. If you talk about how technology is going to change consumerism, you have to use the sophisticated language of consumerism to visualize that.

It's a good example of how, on the one hand, the design amplifies the work, but also it shows problems and issues that were not so obvious. On the other hand, the design makes these ideas more concrete, scarier.

So if you have a theory and you have the actuality, then design helps bring the concepts out of abstraction and into actuality. Which is very powerful if you want to promote change on a large scale. I am

coming back to the activism theme. For example, what has Greenpeace done with a rubber raft in front of an aircraft carrier? It has created an iconic visual that then traveled the world without any advertising budget. They cracked the code of how our attention economy works.

If you institutionalize the exceptional, then you take away its edge

And this is another important aspect: the mechanisms that surround us. I try to observe digital and social media, and other such tools, and wonder about the potential to use them for something else…the subversive moment.

Which is definitely a part of all of your projects.

In my own art practice, I use digital media all day long, but I usually try to hack it and use it for something that it was not really intended for. I think we are already entering the second digital revolution. The first one brought us all these screens that we are adhered to right now, and I hope that we are entering a second digital revolution where we get rid of these things again. Where the digital just becomes seamlessly embedded in the physical, and it is no longer a filter between us and the world, or between us as people.

If you put together all the skills and attitudes that you have mentioned: immersion, creative questioning, doing, communicating, abstracting, amplifying and subversive imagination… we would want as many students and young professionals as possible to have these skills. How do you think institutions can make sure that all students are having such an experience? Should we start earlier? I think you are really the right person to ask this because you are coming at it from so many angles.

Yes, I think we could start earlier, but it needs to be included in a very smart way because if you institutionalize the exceptional, then you take away its edge. In the best of all cases, kids can have an experience in elementary school and then in middle school and then in high school, that upsets them in a positive way: it takes them out of their comfort zone, helps them create some "aha" moments. When it comes down to it, there are a only a few decisive moments in your life when you have that experience. You don't have to have that experience every day.

That's a contrast with the farmer who learns slowly and constantly.

Both our institutions have perfected how to build a space for all the technical and creative skills and the skills of critique. We were forced as schools to perfect that, because there is a lot of pressure to cram everything into an hour, a day, a week, a semester. I think that's a critically important foundation. However, we also need to create little escapes that are re-occurring throughout a student's curriculum. That doesn't mean it is a school that is teaching activism 24/7—but we should all try to promote a questioning curiosity, which I have out of stubbornness, and thus I ignore rules and I don't obey every rule. For a school it is vital to have an overall stance: what are we engaging in, what is borderline and why, where are the limits. This can be a very complex task today, particularly in the United States where the political climate is radicalized on the populist side and the counter movement is an overly politically correct attitude. So you have to continuously question: "Am I speaking with the correct pronoun? Am I excluding someone in the way I talk? What am I allowed to say?"

When there is so much taboo in society or in the academic environment it takes away the spark of creativity and authenticity

Over-consciousness that may take away potential authenticity.

Yes, we strive to be inclusive to a point that it may become a straitjacket, which is the opposite of being genuinely creative. When you are creative, you are also trying to test the limits. When there is so much taboo in society or in the academic environment it takes away the spark of creativity and authenticity.

So less standardization, less institutionalization and less rules in general. What do you want to do in the future? More disruptive projects, social impact, design activism?

I have just disrupted myself. I left a very comfortable, gratifying, amazing job at one of the leading design schools in the world to leave the comfort zone, to go back into the agency world, to try and take what I learned in my career challenging myself: can I change something in an established agency? It's fucking difficult.

I would like to do two things: I would like to continue working and experimenting at the cutting edge of design, media and society, and on the other hand, I would like to be in a position that allows me to keep working with students. Whatever that is.

But you are going to keep on running the Berlin studio, right?

Absolutely. I already have the next projects lined up. We might bring Art Center to Burning Man, a good move in regard to activism. I live from creative challenge to creative challenge. I think it's futile to have a master plan because it is never going to work out like that anyway. It also closes you to opportunities that just come out of the sandstorm, the ones you have to be able to grasp. ■
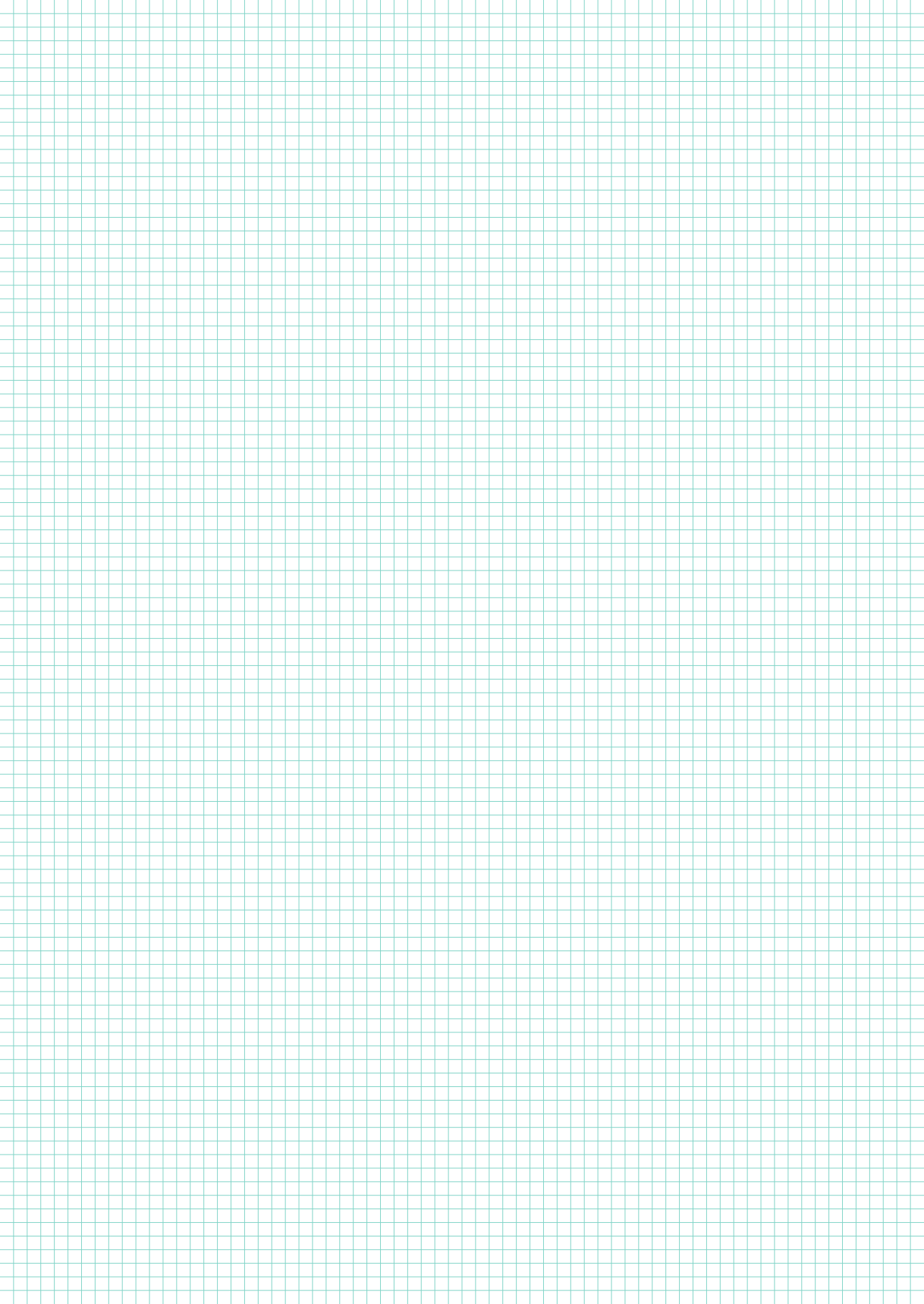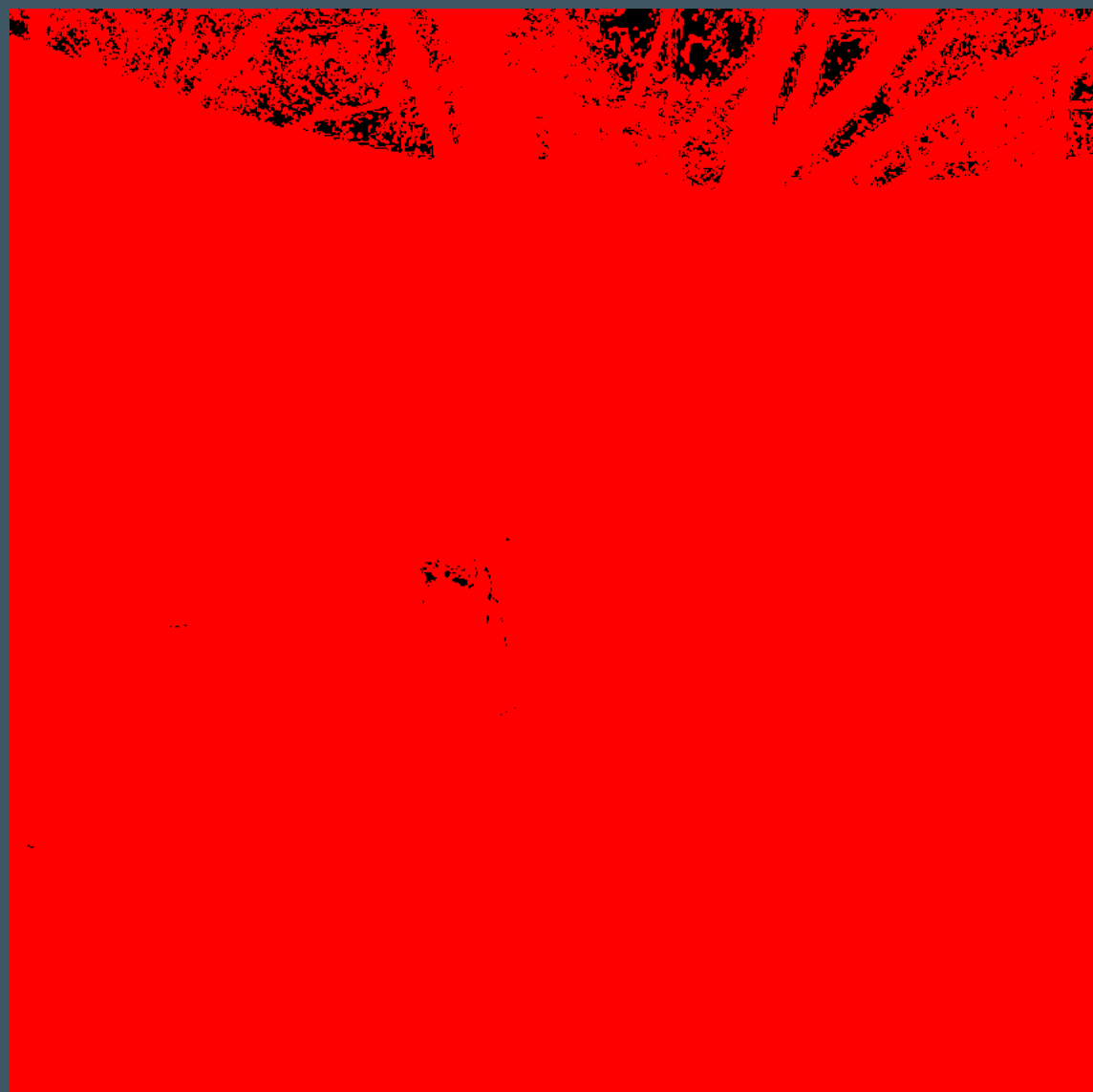
Emerging Design and the Embodiment of Social Transformation

**A conversation between
Ricardo Dutra & Uzyel Karp**

A conversation about aesthetics, society, and the physical body as essential parts of design practice and social transformation. Design is considered here as a constantly-evolving, bodily process, and a fresh perspective is offered on prototyping, theory, collective learning, and the possibilities of education in the future.

Ricardo Dutra is a social designer and action researcher at the Presencing Institute. Uzyel Karp is chair of CENTRO's Visual Communication department.

U.K. **I would like to start by talking about your work regarding the relation between aesthetics and the social realm. How can this relationship inform and guide designers into new ways of perceiving?**

R.D. That's been a recent question that I've been exploring, particularly in my work with the Presencing Institute. There is something about social change or social transformation linked to what we call aesthetics—in the sense of what we feel when we are in a group or the feeling incited by being in a society. It involves the very intangible, non-visible aspect of being with others. Our hypothesis, at least within the Presencing Institute, relates to the depth aspect of the felt aesthetics, which is very important for social transformation. It also relates to language—talking about it is crucial because it is connected to the foundation of what we mean by depth. The language is complex because it involves understanding what people need to have as a prior condition of possibility; for example, understanding that we are always in a social system, which is something that's not obvious to people. Wherever we are, we are always a part of something. That something has a kind of behavior of its own, whether it involves building a home or an extensive social system like healthcare. That kind of social system is not obvious to people. I would say that thinking of aesthetics necessarily relates to understanding systems and system-thinking.

The way we are trying to frame aesthetics in the Presencing Institute implies looking at it in three different ways:

1. **Aesthetics as a structure**
   What is visible; in other words, the visible aspect of something. For example, we would say that when people get together, power arises in a certain way. That's an aesthetic principle: a lot of people together is how power is built. There's something we can see, and which is very visible. I use the word "see" because in this language we are very informed by performing arts.
2. **Aesthetics as a relational quality of the field**
   For example, people feel like they are connected, or that they belong, or they feel like they don't fit in. This relational aspect of being in groups is also something we are calling aesthetics.
3. **Aesthetics as awareness**
   This involves how people pay attention. For us, awareness is an element of aesthetics and social change. People are paying attention individually, but they are also aware of the system as a whole; this obliges us to think about their sense of presence, when they look or focus on something, or if their mind is completely off. All of the latter is a source of social change.

We are trying to find a language to reflect on all of this; however, our basic premise is the idea that there is something that's felt when one is in a social group and that influences social change.

If we are talking about presencing, what is the importance of being conscious about the relevance of the physical body in relation to social change?

One thing that is evident is that we all have a body, therefore social change is related to that and to the fact that we are a body, and that there's nobody else apart from us in the world to act. We are the only ones who will make this thing work or not. In that way we are embodied, we have a body.

I think it's funny when some people say things like: "I'm not a body person." I don't understand that, because we all have a body. The body has perception, so the link might appear there. The body is how we perceive things, because we have sense-perception: we hear, we taste, we look, we feel. That's how we know that the world is there and that's how we make sense of the world. That's how we create meaning, how we project meaning on everything; even some original meaning. It's precisely because we can perceive—because we have a body—that there's no way of making change that's not embodied. When we talk about embodiment in design, people generally think of objects or they think of some material thing such as embodied technology, or some fields of research that go more into the object. Nonetheless, it is crucial to clarify that "embodied" means to have a body, to be in the body.

We are the only ones who will make this thing work or not

We are somehow leaving behind all the information that comes from our senses. Many societies think that development primarily has to do with putting your senses aside. It's all about the intellect and there is a lack of focus on embodiment.

Yes, that's very important because this is how most research and science operate. With regards to design, one thing I've been thinking more and more about is that usually when we say intellect, we refer to a concept or an idea; for example, when we think of how things should be or how they would be if they were different, etc. This is all at the level of concept and ideation, and doesn't involve the body. Body-knowing is very emergent. When we look at knowledge that

comes from the body, it's a more emergent kind of knowing, it's still arising. It's different having a concept of how things should be than being attuned to how things are becoming. I think that's also a different way of knowing, and it's very helpful for design, because design is about "becoming."

Can you explain in more detail what you are talking about when you refer to "becoming"?

I think of becoming in the sense of what's emerging. At every moment something is always emerging. Things are in a constant process of change; everything is becoming something else.

The process of designing something always involves a certain becoming. Design is directed towards something, or it is going forward towards something. That process can be conceptual, or it can comprise

Design is directed towards something, or it is going forward towards something

how this whole social system should work. We could say: "I'm a designer, and maybe the social system should be like that. Let's design it like that." It could be based on a concept, or on something that is arising from the social field itself. In the social field, something is already happening and then the designer is tuning into it. In this tuning process, it's about making visible, explicit or tangible something that is taking place in the social field. All of these processes of emergence—"becoming"—involve the future and how we design it.

How do you conceive future design? How are you developing the relationship between emerging and future design?

I think it's closely linked to prototyping as a design skill. This requires iterations, discovering and re-integrating knowledge, and making new things. The process of prototyping relates to designing the future. In my design work, I came across different names; a researcher from the United States talks about prototyping as designing the space of the future.

Can we talk a bit more about prototyping? As you were saying, prototyping is somehow putting all the theoretical part aside, and taking a hands-on approach.

I think prototyping is exactly that. It's about trusting the know-how; in other words, a knowledge that comes from doing, rather than a knowledge that comes from engaging with somebody else's book. We can do something and learn from that, or we can know something which not only comprises doing but that also requires a reflective process that helps us understand what it is that we are doing and what we are learning. This reflection must be integrated into the doing as well.

Then comes the knowing: one traditional way of reviewing the appropriate literature for a research project requires reading everything that has been written on certain topic. Afterwards, you evaluate what has been said and then you mention what is missing or what has not been said. That's very different from what I was thinking about doing. Instead, I'm prototyping. I do something related to the PhD, and I make a project or create a prototype. Then I learn something from that, and I write about it. While I write, I think: "Now I can read somebody else's work, because it will help me strengthen my own learning that came from what I did." So, it's the other way around: I did something, I learned something, and now I can read and show that it mirrors somebody else's experience. It's a new version of research that revalues the doing.

> Prototyping is about trusting the know-how; in other words, a knowledge that comes from doing, rather than a knowledge that comes from engaging with somebody else's book

Can you give me an example from what you're currently doing?

I'm writing a new blog post about how we work with students in a school in Los Angeles. We wanted to create ways for them to reflect on their experience, more specifically their learning experience. We wanted to prototype something and create ways for them to reflect on something that they learned from the activities that we were doing.

At that time, we began using photographs so they could reflect on what they had done. So, we prototyped the kind of process in which they would take photos of themselves and of the process, and then print the photos and have a series of reflections on them. This is rooted in literature, it's not a new idea in itself; for example, there is design literature around empathy probes that talks about inserting some of these materials into a context and creating ways for people to use them or adopt them in some way. Instead of taking my cue from literature, which would require me to read all of this design literature on probes, I began by simply doing it. Later on, the learning that I had from the doing helped me clarify my own understanding of the literature.

This is interesting if we apply it to the way that we learn design, because it's quite far from the traditional way of learning—where prototyping is not a key element. Somehow, prototyping is the result of research and has a lot of theory backing it up. If we ignore the methodologies and just go straight into prototyping, what do the students learn? Will they reach the same solutions?

I think that would be an interesting research question. It could comprise contrasting somebody trying out something from a merely theoretical stance and then transitioning to the practical aspect with someone else that begins with the practical and then goes on to consider it from a theoretical viewpoint… I don't know whether the quality of the solutions would be better or worse than the other one.

When doing is the starting point, people are less attached to what they make, so everything is developed quicker, and they can focus on learning

However, I think that when you begin from theory—and in design research we do that a lot—what usually happens is that there's a lot at stake. Before they engage in the practical, people have already done a lot of work, so they become very attached to what they're making. That is a natural and human process. Like when we build our houses and we put so many things into it; the more time we spend on it, the harder it will be to let it go.

That happens in the making process as well: you do research and you put a lot of work into it. Another thing that happens is that when people go from research or theory into making, they sometimes have this mindset of getting it right. That's a very big barrier to prototyping in itself. Prototyping is mostly about failing, learning and iterating. That kind of logic is diminished if you think that you're going to find a right solution to global warming, or a right solution to healthcare breakdown or policy. If you think there's a right solution, there's a challenge there.

When doing is the starting point, people are less attached to what they make, so everything is developed quicker, and they can focus on learning. Collective learning is very real because it's an experiential learning. Learning involves some reflective process that enables me to observe how something happened. I'm going forward based on my learning, not based on my idea of somebody else's theory.

In that moment, after significant learning has been achieved, we can go to the pertinent literature. For example, when I worked with the students on postcards, photographs, and videos, I learned a lot about how I have an experience and then I develop a video or a photo of my experience. Clearly the experience cannot be reduced to the photo or video, but they are still significant. Afterwards, when I see my actions depicted in video or photo, I become self-conscious because I see myself acting. So, this is a separate moment because it's not solely my experience anymore. I have learned a lot, and I can now go to the literature and see this same process in the work of others who have learned and documented their action just like me. I strengthened my learning, so in a way it's also more empowering.

Learners begin to think that they can trust what they do, which is a very important part of social change. As a designer, I would also think that there is no right or wrong: it's not like the process of research to prototype is right or wrong, or that the process from prototype to research is right or wrong. I think we need to think of these ways of doing in a context-dependent way. Maybe you're doing a project for the government and there's so much information around healthcare or maybe you just need to know certain things that have been said about certain topic. It's not always one or the other. Nonetheless, I think people are more likely to talk than to do something: that's a very common group experience for me.

It's important to reward failure; it's not exactly rewarding the failure itself but rewarding learning that is possible because of the failure

Where do you think prototyping and theorizing can meet?

I would say we should see it as a constant conversation: you learn from theory and you learn from doing. Both are in conversation all the time.

One mindset claims that people think in a linear way; in other words, that they think "first I do this and then I do that." That mindset is incapable of thinking of things that are happening simultaneously or are intertwined. They can be prototyping something in the morning, writing something at lunchtime, and in the afternoon changing the prototype. So, it's an ongoing dialogue. I think this linear mindset of thinking is one option. Nonetheless, there's also the mindset which revolves around getting something right, and which a lot of people have.

The problem with a lot of systems is that they don't reward when you fail. It's important to reward failure; it's not exactly rewarding the failure itself but rewarding learning that is possible because of the failure.

Your work involves collaborating constantly with other people. I guess that, during all this prototyping, you are collaborating with other people. How important is collaboration during the learning process?

Social change always has to come through with other people

Fundamental. Don't go on your own, ever, because society doesn't work like that. Social change is always groupwork. If people go alone, the tendency is to self-centralize. People lose touch with reality and with the social world. Social change always has to come through with other people.

Which are the most important revelations that you've had about the process of learning in the last years and that you can share with the students?

Something that was very mind-shifting for me was the very idea that we are always a part of something else, whether we are aware of it or not. We are co-creating something together that has—for lack of better words to describe it—a "life of its own." That was a very big shift for me, because I always thought of myself as a doer. I'm here doing something and trying to create something that's coming from my mind; that was what I thought. But what I have begun to notice is that something is already happening in the world, and how I pay attention to that is a very important part of the making. It's not just my idea.

How do you envision the future of design education?

I'm not sure what the future is going to be, but I could say something about what inspires me now. I recently saw a group of designers that was very inward looking, analogous to a circle looking inside itself. "We are designers, we are this group of people looking in." I think that's a challenge, and that design in the future needs to look out to the world, at what's happening in other fields. Design should be looking out and avoid aggrandizing itself.

When I think about the shift that designers at Parsons experienced, I realize it didn't happen within the program; it was the result of the designers going out, looking for a job, and trying to find a place in the world for what they had learned. What they encountered was an immense resistance. They couldn't communicate what they wanted. However, besides resistance, they also encountered opportunity because people were very interested in anything that was related to the future. I believe schools, universities, and groups that are preparing students to look out are a great thing; it's also very good that these institutions are looking out of themselves and that they're not centralized.

> When we are talking about creativity and making, the latter are completely learned in a collective context

In Brazil there's a lot of issues within universities that are just so far away from everything that's happening; therefore, they can hardly participate in any social change consciously because they're just so into what they are doing. And what they do has nothing to do with society. Also, whenever they want to relate to society, they begin to criticize and say: "Oh, this just isn't working for anybody," but they are not actually engaging in change apart from this moment of criticism. So, I think design needs to be engaged always and I believe the university can make that connection happen; it can generate projects, have more conversations, open the campus and be a space for permanent dialogue.

Let's talk about the Latin American programs for teaching design. I'm sure there are many different ways of teaching design around the world, but what do you think is missing in the way that we teach design in Latin America?

I studied my undergraduate degree at a public university that had a very traditional Brazilian style of learning: somebody has the knowledge and other people acquire that knowledge from that person. Then comes the grading system: the students are being evaluated based on what they have learned.

When they join design school, their world is at least five years from what it is today. So, a professor from twenty years ago really needs to catch up

When design capacities are being built, my perspective is that there are some things that are fundamental. For example, if students are learning typography, there are foundational skills that we might assume they're going to need. But when we are talking about creativity and making, the latter are completely learned in a collective context. The learning comes much more from the group than from an expert. So maybe it's a mix of both things: there's an expertise—there's some part of learning that is about being an expert in something and transmitting that through professor-student relationships—and there's another type of learning that has to do with others. My master's degree was a lot like that: 50 percent was peer-learning that had nothing to do with the professor and it had everything to do with others; then there's something that the group is learning together, not from each other but from their own making. It revolves around what they are making together. That is also a form of learning. In Latin America, I would think that learning is based on a professor-to-student format, and rarely involves learning from each other, from the future, or from what the students are making together.

Do you think this has to do with the abstraction of the body from the process?

I would say that this is a disembodied format because learning from a professor stems solely from his own experience. Or it related to the professor's idea, something that he read. Professors are used to teaching and learning in that way because that's how they were taught, so now they are replicating that model to their students. This connects to what they learned themselves and less with the students' experience of learning.

In a way, if you call "embodied" what is experiential, then that's disembodied because it is coming from the teacher's idea of what knowledge is and not from the students' experience of knowledge. Therefore, that method is disembodied because it is very intellectual and not experiential at all.

I agree, I think that we're learning things from the 18th century from people who learned in the 19th century, with a model of education from the 20th century in the 21st century. In the end, education is three or four hundred years away from what life is now.

Yes, and from what life is becoming also. We are learning from the past, from all these habits and things, but we rarely ask: What is the world becoming? What is Mexico City becoming? What is the role of the university in relationship to that?

That's the way the students will encounter their world. When they join design school, their world is at least five years from what it is today. It's not even now, it's a world that is already in the future. So, a professor from twenty years ago really needs to catch up.

We were talking yesterday in class about the future of the city and everybody has a really pessimistic take on the situation—environmental issues, the collapse of cities, and where the world will go next. I'm very curious about what's going to happen with the future of these new students if they really have such a pessimistic idea of the future. What do you think we can do to adopt another mindset? Or how do we turn this into hands-on projects?

Sonali, a colleague from India, has taught me that the mindset shift is intertwined with how people are coached. What I learned from her work was that for people to be able to shift something, somebody else has to witness it.

Coaching works differently in each place. It traditionally means that I coach you to become something, so I have an idea of how you should be, and this is my method for helping you achieve it. However, that framework is problematic in itself. I think that when the coach or the professor or the peers begin to witness each other, it's an important element of the learning process.

For people to be able to shift something, somebody else has to witness it

One thing I'm seeing with 4D mapping—a method that the Presencing Institute engages with—is that sometimes the students get connected with other groups in systems that are very different from their own. That is also part of developing a different way of thinking. For example, a marginalized student from a community meets a privileged student, and they do something together. That also has some energy there, and they both learn something from that process.

Is there something else that you want to mention, something that you think is missing?

I think that it is important to reflect on the connection between Latin America and design, and look at that relation in terms of potential for growth. Where is the potential for growth to be found? Where are the seeds that can grow? Instead of just looking at how things are not working, we should use a kind of language that includes concepts like growth and potential related to design; I think this will be very helpful for the future of our field in Latin America. ∎
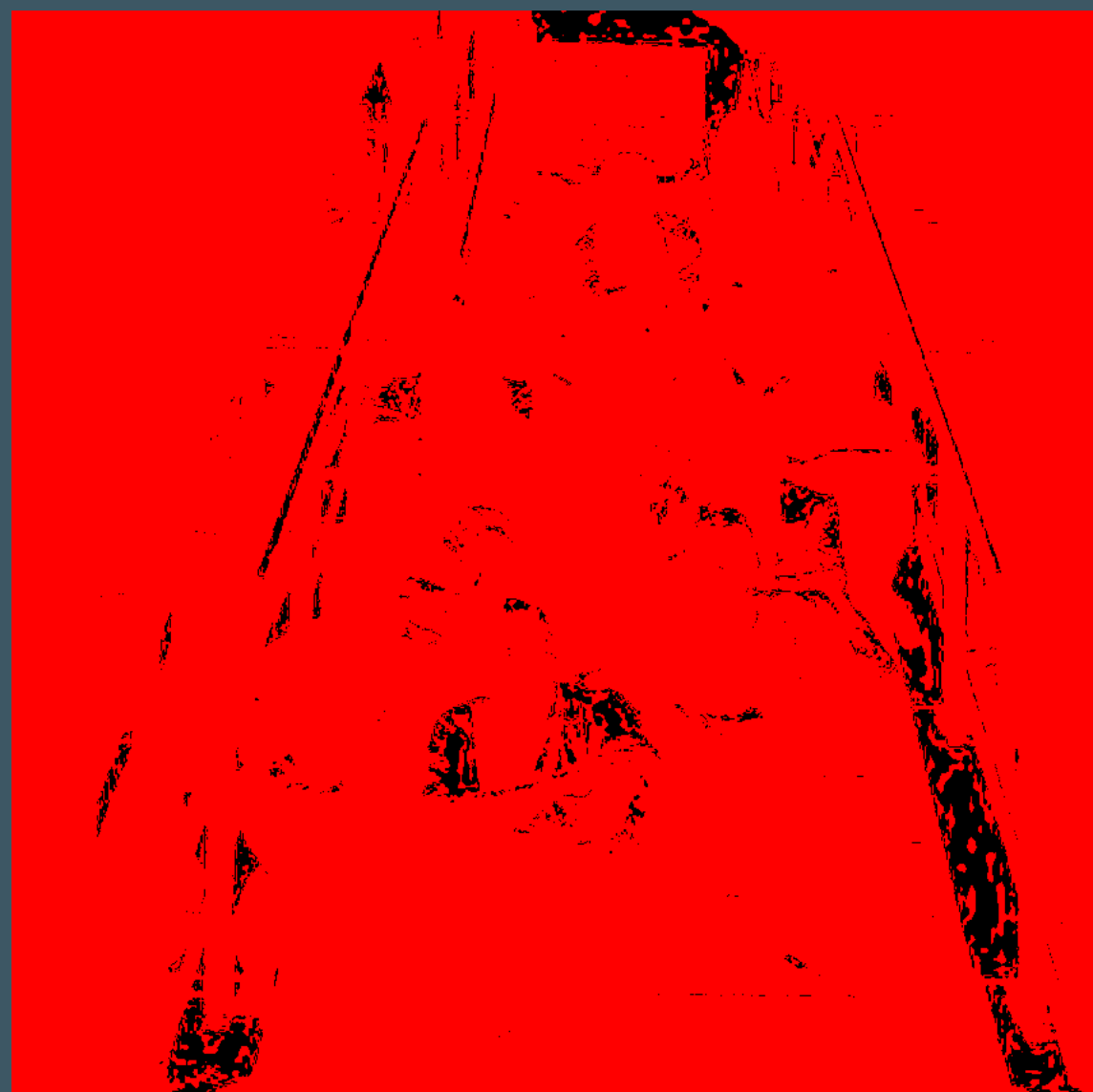
The World Doesn't Need Changing: We Do

A conversation between
Cheryl Heller & Paulina Cornejo

This discussion focuses on how language-related issues are the underlying principle of all design, and on the importance of communication and building trust. It also gives a detailed view of social design and the evolution of its theory and practice; its defining skills and characteristics; its latest real-world applications; and the steps required to measure design's social impact.

Cheryl Heller is the director of Design Integration at Arizona State University and founding chair of the first MFA program in Social Design at SVA. Paulina Cornejo is the head of CENTRO's Social Design Hub.

P.C. **Throughout your career you have developed very successful and diverse paths as a designer, entrepreneur, and corporate leader. A little over a decade ago, you began to get involved in the fields of social design and innovation. What inspired you to take this path?**

C.H. One of my most important influences is Paul Polak, whom I met at the Aspen Design Summit. Paul is a former psychiatric researcher who began working to eliminate poverty many decades ago. He was in Aspen because David Kelley, founder of IDEO, told him that what he was doing was design. So Paul showed up there because he wanted to see if David Kelley was right; if he was, then Paul had an agenda to change design. When I met Paul, he was wearing a plaid flannel shirt and suspenders in a sea of designers all dressed in black with silver accessories. Before we left, I stuck a note in his suspenders that said "I'm not sure I understand what you are doing, but I want to help you do it." We became very close, and he more than anyone else has had an influence on me. Paul created the expression "Design for the Other 90%"; he has brought 20 million people out of poverty; he was the first to discover what he called a "social architecture"—an invisible social environment that, for example, determines certain people's ability to cope with mental illness. He saw that the difference between people with mental illness who end up in the hospital and those who don't often relies in other social factors, like poverty and homelessness. This whole idea of social architecture is the basis for social design.

All change begins with a conversation between people

How do you approach social design?

First, it's important to define what we mean. Social design is the design of relationships; the creation of new social conditions intended to increase agency, creativity, equity, social justice, resilience, and connection to nature. That means that it's not the traditional material and visual design that we know. It involves the application of the design process at a larger scale, in order to transform corporate or social cultures, and create the conditions for more creative and just societies. It's a new field, and one I think about a lot. I am in the middle of a PhD program, for which I am situating social design in the context of other fields, and investigating what difference it makes, what makes it good, and how its effect can be measured. The language we use to describe it is very complicated because humans seem to have to name a new process or put their mark on it. A part of what I am hoping to do is bring some clarity to that in our work. I end up using the expression social design because I think it is the most literal.

I agree, it is a complex topic. In 2014, in the process of creating the Social Design Hub at CENTRO, I analyzed more than thirty concepts related to social design or social innovation. My conclusion was that even though all of them had similar focuses and descriptions, their conceptual complexity amounted to disconnected practices that seemed to limit learning and knowledge exchange. What is your perspective on this from a practical point of view?

Yes. We are looking to redesign broken societies; there are artifacts, products, technologies created in the process but to me what makes this design a discrete practice is the fact that we start by looking at the invisible dynamics in human relationships as material we can work with. Maybe some think that's the work of people in development or social workers, but it is everyone's work, and we will come to see that all of these silos separating design and research are arbitrary boundaries. We will learn from each other's experiences and put it together instead of working in our own silos. About five years into the School of Visual Arts (SVA) program, I decided that we had to make the case for the effectiveness of social design, and no one had quantified that yet. There had been no common way to measure design's impact. In 2017 we had a symposium called Design + Health, bringing together about 250 designers, corporate leaders, health practitioners and funders. Now, we are deeply involved in a longer research project to understand how people around the world are measuring design's effectiveness. In this process, and in the process of writing my book (The Intergalactic Design Guide), I have seen many examples of effective design that are done by people who do not think of themselves as designers. There are some policemen in Springfield, Massachusetts, who are using what they have learned—e.g. counterterrorism methods—to strengthen these communities and reduce gang and drug violence. The process they use is what we would call social design. Instead of arresting people for committing crimes, they are working with communities to find solutions. But they don't think of themselves as designers, they are police officers. The more deeply we get into this, the more resonance the question has.

We are looking to redesign broken societies

You mentioned the invisible dynamics in human relationships. In other interviews, you have talked about designing language and conversations as a way to change behavior. Nonetheless, how can we design trust?

It's elusive, right? There is a wonderful book called *True Enough*, (Farhad Manjoo) which came out a while ago. The last chapter is remarkable because it describes a town in Southern Italy that failed

because people were so mistrustful of each other. They wouldn't even tell someone if they weren't feeling well because they wouldn't show that vulnerability. It's quite remarkable to look at the cost of the lack of trust. I love language more than anything and I think it is the beginning of all design. If you read *Leadership and the New Science* by Margaret Wheatley, she talks about the fact that all change begins

Language is the beginning of all design

with a conversation between people. When we use language filled with clichés, or politicized, or just the empty generalities that most of us speak with, there is no traction. No one can disagree with you but the language is too unclear to inspire action. To me there is only relative truth, but speaking from the truth of what you really see and believe has to be the first step and I think is so often overlooked. We think we are communicating, we think we are giving someone a picture of what we are seeing, or we think we understand them and we actually don't.

How did you decide education was an important matter and get involved in it?

Richard Wild, the chair of Undergraduate Design and Advertising Programs SVA) and I became good friends while on a boring nonprofit board together. He asked me to teach, and I said, "that's not going to happen because I travel all the time; I'm running a company; I don't like kids that much anyway, and I hear the pay is terrible." He said, "just try one class; I'll send the students to your studio, you don't even have to come to school." He asked me to think about something that bothered me and that I would like to fix. I was never educated as a designer, I was educated in art and then I went back to school for writing; however, what I saw in students that I hired and knew was that they had been taught self-expression and given tools, but they had never had a conversation about how design connects to the world and the impact that it has had, nor had they considered the difference between what they did and what happened as a result of it. So, the undergrad class was an exploration of that and then, after about five years, SVA said "what would that look like as a graduate program?" And that became MFA Design for Social Innovation at SVA.

When you began teaching the *Design for Good* undergraduate course, what was it about?

At the time I started we didn't label it social design; we didn't have a separate language for it. It wasn't a field, it was just this sense of—you know—that Buckie Fuller quote: "If the future of the world depends

on who I am and what I do, how should I be, and what should I do?" These are human instincts. When I think about education now, honestly I think about what you are referring to regarding CENTRO's program involving its local community and I think that what I am doing here should not be a separate program. It should instead be embedded in everything, but, for this reason, this will not happen in the near future; nonetheless, I would like for this separation between social design and every other profession to go away. It should not be necessary to teach empathy. If we have to teach it, we have failed. Now that I have done it for nine years, I just see this needs to belong everywhere and these skills need to be accessible to everyone.

How do you imagine these skills being accessible to everyone?

I went to visit a school in Philadelphia, a training program that accepts people who have been in prison and guarantees them jobs in a grocery store. At first, I thought I could hide and just observe in the back of the room, but someone made me come to the front to speak to the class. They asked me what I do, and I had to explain what social design was. It is usually hard for people to understand, but, in this case, I was stunned because they immediately understood the need for social design, since they know that society is broken. They experience it every day. Thanks to this experience, I thought that these were the people who need and deserve to know how to create their own futures. I look at what the DSI program accomplishes: we give people agency, we give them all the skills they need to identify an issue, to understand it, to reframe it, to facilitate others in helping to change it. Everyone should have that ability, everybody should have that sense of agency and possibility. I don't know how, maybe that's something we can talk about doing together.

The world doesn't need changing: We do

I agree. It's more about transversal skills that shouldn't be viewed as something separated. For over two years we conducted a research to identify seventy-seven socially oriented projects at CENTRO that were developed by students between 2007 and 2016. We found out that participants had developed seven key social and professional abilities, in alignment with the so-called skills for the future and with the SDG 2030: critical thinking, narrative connection, business development, social intelligence, procedural reasoning, collaboration, systemic vision. What is your view on the inclusion of these abilities in the curriculum?

It's true. I love what you are saying. Writing a book gave me the discipline to be able to understand and codify what I think by seeing it in a different form. I have come to think of this as kind of a disruption of the world of experts, by giving everyone who participates the necessary skills to collaborate and create a new future. The skills needed are the soft skills that are now called power skills. These are the ones you mentioned: communication, critical thinking, collaboration, facilitation, leadership. And the creative process, of course, because it is accessible to everyone. Our curriculum is based on a combination of the expert skills and soft skills, and it sounds as if yours is the same. The big design consultancies struggle to maintain a kind of secrecy or magic around what they do that no one else can. It is becoming more difficult for them. When your job is to lead a collaborative design process, you have to teach the people that you are leading, they learn how to do it. This can become a sore point for traditional designers, who want to show up as if they are the only people with answers.

> ## It shouldn't be necessary to teach empathy. If we have to teach it, we've failed

Yes, it's very interesting. We are working to embed these approaches in the curriculum, but of course we have a long way to go. When we were doing the research, I mentioned I interviewed more than thirty-five students and graduates with social projects, and it was revealing to find out how the input of one professor, even just one comment during the undergrad studies, could be powerful enough to affect the election of socially related topics for theses, dissertations, and even professional pathways.

You mentioned the creation of the MFA in Social Innovation. After five years, how do you see the professional pathways for your graduates?

Yes, our graduates have an easy time finding a job. They are getting lots of interesting work proposals. Because we are in New York and all our faculty members are professionals, our networks are large and students can take advantage of them. Our alums tend to be the people at an innovation lab who are hired to develop new ideas and change the culture. One of our students was the first designer hired by the Peterson Health Institute; three other former students have just been hired at the Global Health Institute at Mount Sinai. One of them is now teaching design to doctors. Our graduates are the ones leading the change. Another of our students is the head of the Innovation Lab at UNICEF; another is in the new service design lab at New York City's Office of Economic Development. Some other students are in

jobs that on the outside might seem like traditional jobs—e.g. one of them is working in a huge interaction studio; however, they manage to integrate what they've learned here into other kinds of projects. As Doug Powell, who works at IBM, said: "It's a very good time to be a designer." Design is in demand now. Depending on the industry, graduates either enter it blatantly as coming to work on the human aspects of things or it fits into another job description, but that's what they do. The point I always try to make—even if it may be a source of frustration for me—is that I think this discipline is needed everywhere; it's needed inside of corporations with cultures that are unhealthy; it's needed in government. Many people think this is just the non-profit world, and that's something I want to change. It's why we teach entrepreneurship, it's why we make an effort to expose students to the corporate world. A lot of young people don't like corporations, they think that's the dark side. We work hard to convince them that you can't generalize in that way anymore—any more than you can generalize about other things.

It's a very good time to be a designer

I completely agree with you about design being in strong demand now. In a way, the conversation has evolved very fast and this is good, but, at the same time, we are facing the risk of the social becoming some kind of trend, a commonplace that makes me think of greenwashing. For me, many solutions seem ephemeral and anecdotic. Everyone wants to become a change, maker but this requires commitment and certain understanding of contexts and relations, skills, time, education, as well as a good dose of uncertainty with regard to the outcomes. I don't think many organizations are ready or committed to this. What do you think?

I think it's a real dilemma and that's why I felt a responsibility to demonstrate the rigor of the practice. When people feel like they can take a four-day workshop, then go out and muck around in other people's lives, it makes me crazy. That's what's happening and it is a real danger. That's why I launched the Measured Project, to quantify the contribution of design and bring rigor and standards to its practice. We are working to demonstrate and showcase examples of successful and responsible social design. We may never change the people who think that doing a poster for a cause is social change. I don't know what to do about it, except to demonstrate the responsibility required and to keep doing what we are doing. Design thinking is another trend that is misleading and a bit out of control. It leads people to believe that if you have enough post-it notes you can "change the world." The world doesn't need changing: We do.

Since you started teaching fourteen years ago, how have the environment and mindsets changed? Where were we and where are we now?

We make a point of telling students that they didn't invent this practice of social design; that people have been addressing human issues for as long as there have been societies. It's important for all of us to learn what has been done, all the work that has come before, and what has been successful. What's new is obviously the formal application of the design process to these things; in the time that I have

People have been addressing human issues for as long as there have been societies

been involved in it, I think the discourse has progressed dramatically. There is learning taking place and sharing that is taking place. We begin to have a much greater understanding of what this kind of design is and how it works. It's a real profession now, you know? There are more and more places where you don't have to explain it. When you talk to The Gates Foundation, you don't need to explain why you are doing what you are doing, and that's really exciting. There is an academic discourse, there is a practical discourse, and there is growing receptivity in lots of unexpected places where people have been trying to address things and are realizing that the old methods aren't working.

Where do you think we are heading up to?

Well, first we have to get rid of Trump…. It's a really interesting moment. I can't separate where I think we are going from where I want to go. As I said, I think we have the chance to integrate what we have learned about how to be inclusive and how to use what we do to create healthier societies and a healthier culture. I think there is an opportunity to expand the knowledge base and make this accessible to more people. Several colleagues, some of our students and I are involved in a project to reduce the number of young people moving from foster care to homelessness. The conversations that I am having would not have taken place a couple of years ago; a patron would have never said "I want to use design to guide this process." I see real progress at the corporate, philanthropic, government, and global level.

You just published your book *The Intergalactic Design Guide.* What can you share with us about it?

Do you know a book called *The Elements of Style?* It's forty years old and has been kept in print and revised over decades. Maira Kalman worked on an illustrated version of it. It's this very skinny book that has the principles of how to write; it's so elegant and beautiful. It doesn't give you rules, it gives you motivation and principles. It has always been an inspiration to me and has driven me to simplify things and to get to the bottom of things and to make them more accessible. I detest the complication and obfuscation of things, and so my hope for this book is that it explains in really plain language what the potential of social design is. In writing the book, I have tried to make the principles of social design— those that lead to equity and justice and environmental responsibility, which actually are the commonsense principles that they seem to be. The social design process ought to be the default way we work. It's intuitive, right? Of course we should include the people we want to help. Of course we should experiment before we spend a lot of money planning, etc. These principles are not difficult, but we do need a new generation of leaders who will step up and say: "I'm willing to take this on. I will help guide this collaborative process." I know that what you are doing and what I hope to do here—and expand it in any way we can—is to inspire people to step up. We know we can provide the skills to take on the challenge. That's a big hope. And that's why I wrote the book. ■

The social design process ought to be the default way we work
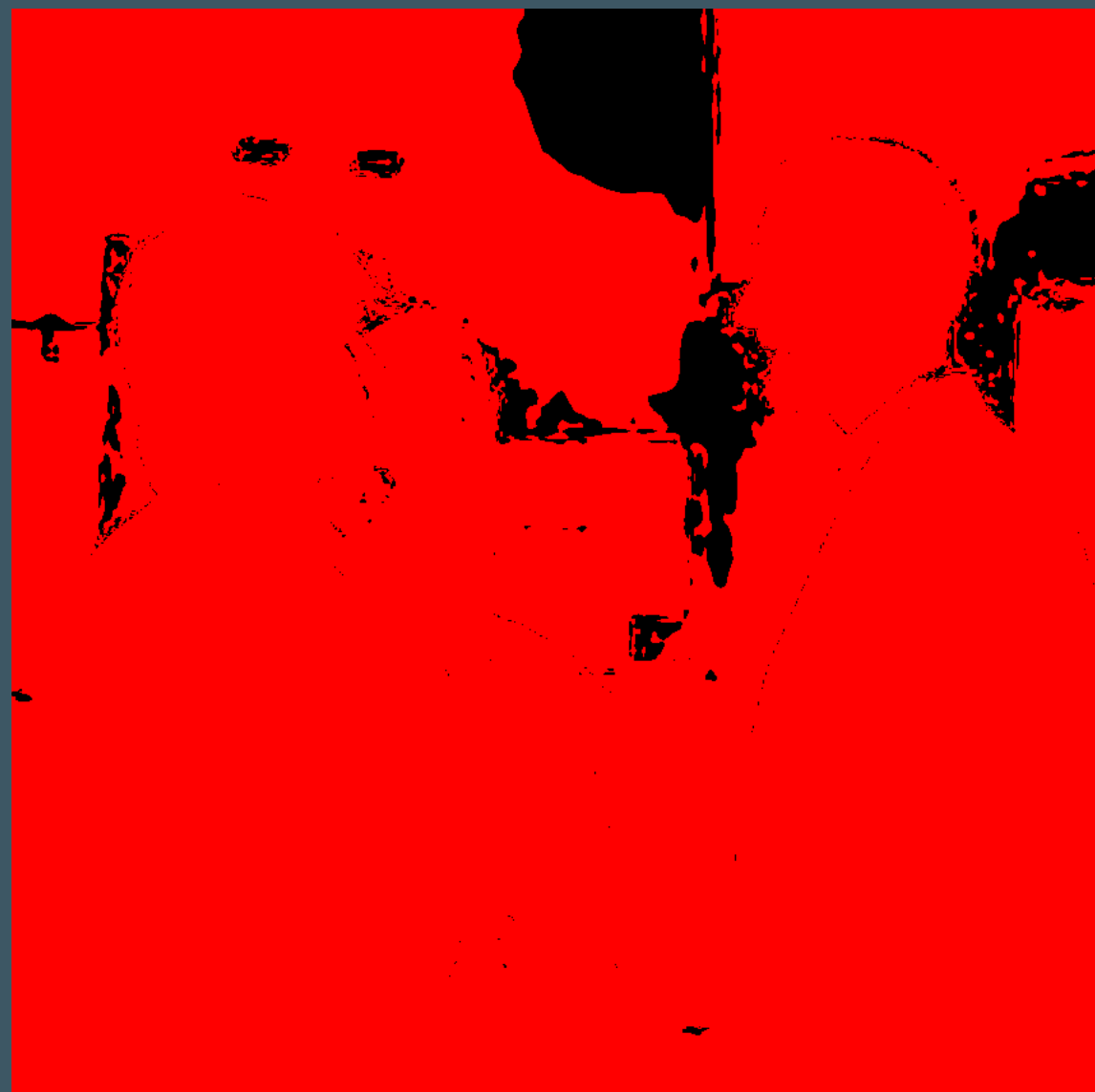
Trying to Make the World a Better Place

A conversation between
Brendan McGetrick & Sebastián Ocampo

A dialogue about design education and social impact, through the prism of the Global Grad Show in Dubai. This discussion centers on design's evolution, new academic approaches, and students' social innovation projects identifying local opportunities and needs that are often overlooked by the market.

Brendan McGetrick is the director of the annual Global Grad Show. Sebastián Ocampo is the chair of CENTRO's Industrial Design department.

S.O. **Brendan, considering your extensive professional development and your background in journalism, how did you end up in the design world?**

B.M. I'm a curator and writer from the US, although I am based in London. I worked as a journalist for several years and then, through a very indirect path, became a kind of person in the design world. Originally, I was hired by Rem Koolhaas, the architect, to work with his team on a special issue of *Wired* magazine; then he hired me permanently as his personal editor and we published the book *Content*. I worked in his office for four years researching, publishing projects and developing exhibitions. Afterwards, I moved to China and collaborated with architects and artists who worked in design or art. I collaborated with people like Ma Yansong and with Ai Weiwei in several projects; we made a book and a big exhibition at the Gwangju Design Biennale in Korea. The latter was the first project that I ever curated and it was called *Unnamed Design*. In that show we tried to expand the conception of design, so that it could go beyond the standard disciplines of architecture, furniture, fashion, etc. in order to include things which are much wider, like an honest assessment about the role design plays in the world and its negative impacts in terms of manufacturing weapons or developing mechanisms for people to control other people, whether politically or economically. Basically that project introduced me to curating and it became the foundation of what I try to do with my work in design, which is really to try to expand the definition and the conversation regarding design, so that people can see that it is relevant for everybody, that it includes contributions from as many places as possible, and that it doesn't depend solely on high technology or wealth.

> What is beautiful about student design is that, because it's not responding to a client's demand or to the pressures of the marketplace, it's really coming from a place of emotion and hope

Is this what you try to do with the *Global Grad Show*? Can you tell us more about it?

Yes, basically, *Global Grad Show* is an extension of that effort. Four years ago, some members of our Dubai group, who were at that time only planning to create something called *Dubai Design Week*, approached me and said: "We are going to launch the Design Week. Can you think of an original initiative that we may be able to include?" And I kind of thought of Dubai at the time—and still now—even if it is not really considered a design capital. Nevertheless, it is a place which is investing in education and in innovation and it is, without a doubt, one of the locations in the world where people get together and meet one another; it is a meeting place, especially for that part of the

world: the Middle East, South Asia, North Africa. Therefore, I thought that it would be really interesting if we used Dubai's great strengths, like the fact that it is a so-called hub in a meeting place, and we made a design exhibition that was really focused on the next generation of design. For me, this was always representative of design schools, so the idea was just to see if we could create a selection of what are the most interesting, ambitious and intelligent grad group projects from design schools and art schools and technology schools all over the world and put them all together in a single space. This is what we've done now for four editions. It started in a very small scale, with just ten very well-known schools like the MIT, the RCA, ECAL, and the National University of Singapore. We had a very positive response from the visitors, but the main negative response was that it was not really global enough, and that it was kind of the usual participants in terms of big established schools that already get a lot of attention, have a lot of money, and don't need a global platform as much as other schools in other countries.

What are the criteria you use in the selecting process of *Global Grad Show*?

What I try to do as a curator is to just open up design so that its value becomes clear. I think if you limit it to what most people think of as design—i.e. as expensive fashion, furniture, and so forth—it feels like it is not that relevant for a lot of people. In my opinion, really good design is just about problem-solving and trying to make the world better. And of course that is relevant for everybody. Now, the main criteria involve the question: Have you genuinely designed something new? And, if it were to go forward, would it make a positive impact? Does it actually address a need that hasn't been addressed in a new way? I think the main reason why I choose things on that basis is that it means that you don't need to have something that is super beautiful or an expensive prototype. It is innovating in its purest sense.

Regarding diversity, you mentioned that there were only ten schools in the first edition. How has this changed in more recent editions?

The main effort we made from the first year going into the second was to really expand the number of participating schools and programs, as well as the kinds of problems and issues that were being represented in the show. That's how we first got involved with CENTRO and many other schools. Since then, we have expanded so

that we can really create a platform where young designers from all over the world can come together on an even playing field, get attention, and meet each other. In 2017 we had 93 schools from 42 or 43 countries; in 2018 we had 100 schools from 45 countries. However, the much more interesting thing that we figured out for the 2017 edition was that, although the schools were from 45 countries, the students came from 62 different countries and a lot of them were originally from places that don't really have design schools. For example, Palestine—which isn't even recognized as a country by some people—or Ethiopia, as well as other countries where basically the young talents, the students, have to go abroad and study in places like the RCA or RISD. It is very significant that they get attention and that it's clear that design is something which is being pursued by people everywhere, but not necessarily with the same opportunities and infrastructure. What was exciting about the 2018 edition was that we had 160 projects from designers that came from 62 different countries. So almost every other project was from a student by a different country, which I think is really exciting.

Design is about problem solving and trying to make the world better

For all of us at CENTRO, being selected by the *Global Grad Show* came like a recognition of the way in which we were practicing design. We have a final one-year project, which not all universities have, and we discovered that many of our students were working on social innovation or social responsibility oriented themes. This relates to the way you select projects that must have the objective of making the world a better place. Considering this, do you find that schools are promoting such a new way of practicing design that goes in this direction in a deliberate institutional way or is this just a cluster of isolated cases of students that get involved in socially responsible activities individually?

I think some schools do; obviously, CENTRO does. There are definitely schools that see social innovation design for social good as being part of their mission. What has really struck me while developing *Global Grad Show* is that actually a lot of the students themselves simply see design that way. What is beautiful about student design is that, because it's not responding to a client's demand or to the pressures of the marketplace, it's really coming from a place of emotion and hope. When we talk about *Global Grad Show*, sometimes the press will say things like: "These are student projects, which means they are not professional and they are not to be taken as seriously as

things which are being sold." I always reply that is total nonsense because the reality is that projects that are coming out of design schools are very often addressing needs and identifying problems that the marketplace simply has no attention for, and, in a way, doesn't care about. This, however, doesn't make them any less urgent or any less important. I think it's a really important balance because if you allow the market to make all the decisions about what design or technology should be, you'd just end up getting many versions of the same things that have already been proven to work. So, when I organize *Global Grad Show* as a curator, the main criteria that I use to choose a project is that it needs to feel new. This relates to the way I conceive of the nature of the student experience, of being a young person, which involves being immersed in design as a way to make the world better and intervene in it many times in a small yet meaningful way. That really is the answer to why design schools are so valuable. Regardless of whether or not they have design for social good built into their curriculum, I think it happens anyway because of the nature of the student experience, and due to the fact that schools in general encourage you to think about experiences outside of your own experience, to explore them and to try to understand in a really high level of detail what it is like to be handicapped, or blind, or a child in a hospital. I remember that CENTRO project from the first year that you guys participated, and I think the designer's name was Miguel…

Design offers you the opportunity to deeply consider what it is like to be somebody else

Yes. It was called *Superheroes*…

And the project involved adding IV poles so that it would be like a little imaginary friend for a child in a hospital. I'll never forget it because for me that was the essence of what was beautiful about *Global Grad Show* and about design in general: that it wasn't expensive or complicated but it was very, very smart in terms of identifying an experience and then really trying to address it. I think that's what great design does, and what's great about schools is that they explore a much wider range of experience. In my case, simply by making *Global Grad Show*, my understanding of the human experience has been expanded so much because every year there are new projects about new issues that I just hadn't considered and which are outside the scope of my life. I think that a lot of times design offers you the opportunity to deeply consider what it is like to be somebody else, to realize how badly designed the world is for so many people, and how unfair or difficult it is—unnecessarily—just because the people who made decisions only had themselves in mind.

Do you think that fifteen years ago you could have organized a *Global Grad Show* related to social innovation? What do you think has changed? Have the schools changed or are millennials just different? In other words, how do you rationalize this new way of approaching design?

I wouldn't imply that I know the answer to that question. On the one hand, young people are more optimistic and have a greater commitment to the future. I think that they feel that the problems that the world and they are facing simply will not be solved by older generations. There are a lot of reasons for that. One of them is that the market economy doesn't care about the social good. Of course, there are moments when it makes financial or economic sense to care about the social good; but at the end there are many examples of ways in which you can be celebrated and rewarded as a business person while committing incredible crimes against the social good. My feeling is that young people—particularly millennials—have grown up in an environment where money seems to be the ultimate value that dictates what matters. I think they recognize that as a dead end. They are witnessing their elders deal with very urgent problems and failing. If you look at the way things like climate change are going, the way governments are approaching migration, the way they are handling the relationships between themselves, it basically just feels absolutely out of control, irresponsible and immature. I think that young people are recognizing that and trying to respond within the powers that they have. Therefore, sometimes the best you can do is trying to design a small intervention that would make, for instance, migrants experience better or trying to figure out what would happen if the world's population of bees goes extinct or the sea levels rise a meter. It is already significant to try to figure out a way to communicate and contribute significantly to the lives of people who are going to be affected by such events, even though the problems are so large that there's not much you can do individually—and there's certainly not much you can do as a young person. Now, I do think that the schools recognize the value of that more than ever before, and I don't intend this to seem as if this is coming entirely from young people.

Design is being pursued by people everywhere, but not necessarily with the same opportunities and infrastructure

It seems that from the moment that you engage or that you develop a social innovation project it is taken for granted that it is good. Nonetheless, sometimes I see that there are no instruments to measure the impact or the outcome. Considering this, which would you say are the main difficulties and next steps for measuring the impact of these projects?

Yeah, this is really important. In terms of *Global Grad Show*, this is why it exists; I'm very skeptical of projects that are created in American or European schools and are then dumped into India or some African country. These projects are mostly for making the schools and the designers themselves feel good and that is why we try as much as possible to provide local solutions to local problems. Local solutions are based on a much more intimate understanding of what is going on and what is the real need or problem. There are so many examples of corporate social responsibility projects that are trying to help, for example, a remote medical clinic in Africa by introducing their technology and their goods and, after a big press release, the technology turns out to be inappropriate to the needs and resources of the place. That does more harm than good because the problems remain the same. I remember this article about how a med-tech company had given a centrifuge to a clinic in Africa to help them test for malaria and HIV but there wasn't steady electricity there and no one knew how to repair it if it broke down. A year after the delivery somebody went to check it out and it was being used to hold the door open. That's an extreme case of something that happens a lot, so we all need to look closely on our motivations and why we are doing things.

> Compassion and the desire to help is part of the human experience

Why do you think human beings want to do things for others?

Well, because it's undeniable that there are situations where outside thinking can help, and I certainly believe that compassion and the desire to help is part of the human experience. I would say that another real problem of our present day context is that we live in a highly competitive environment that assumes that everybody is a self-interested person who is trying to maximize their own benefit and using every relationship that they have for their own ends. I don't believe that. I don't think that is human nature. I do think that people, when they have the possibility, do want to help each other and they want to apply their skills or resources to try to make a positive intervention. The only problem is, though, that there are sexier problems than others and people a lot of times are drawn to issues

that seem really cool and interesting to solve but that they don't really understand that well or frankly they'd be a lot better served by trying to solve a problem that is much closer to their home. It might be less interesting to them but is just as urgent and they can understand it a lot better.

This is very interesting. One of the necessary ingredients from the point of view of design perspective is to be very local and having the community actively participate. After the last earthquake that struck Mexico City in 2017, there was this brilliant guy who developed a system where—with the help of a lot of volunteers—you could verify information and make sure that you knew exactly where help was needed. This avoided misinformation and the waste of time and resources. When they tried to use the platform again for a flooding situation in another area and with the imposition of technology, it didn't work. Nobody used it. It didn't have the real participation of people in terms of building the project. What do you think regarding the use of technology and communal participation? What should we do as schools about it?

I think it is especially dangerous in this kind of digital age to get this feeling that you can solve big problems only by having an app or with a very clever system that is based on digital technology. The reality is that nothing has changed that much, it's always basically people; it's always a human endeavor, things get accomplished by humans. I remember I read an article about Obama's presidential campaign in 2012 describing how he had this completely amazing system for identifying voters and relationships; it was all digital and about understanding to an extremely high level of detail who were potential voters, and how you could reach them. So, if you read this you could say: "Yeah, this is amazing; this is really impressive, and it is the future of democracy". However, when you get to the very end and ask his campaign manager, "What do you use all this technology for?," he would probably answer: "Usually we just use it so that when all the volunteers go out and knock on people's doors they know exactly where to go." What this means is that all that technology was just to support the work that everybody had been doing anyway, which is to physically go and talk to somebody.

Things get accomplished by humans

Exactly…

Ultimately, it's about going and speaking to somebody and having a face-to-face interaction. And I think that it is absolutely true that students, especially these days, need to understand that the physical and the personal are like this. The digital is a kind of simulation of reality but it's not reality. In a way it is a very flattened version of reality. Therefore, any kind of solution that involves real people has to have real people as its foundation, and you have to understand that only real people can make it happen. That means you need to understand what they are actually doing already, what they want to do, what they believe in, and not impose something external to it.

Do you find similarities between the projects and the type of problems they want to resolve? Is it more common to find solutions for rural areas than it is for an urban setting?

No. I think it's reflective of whatever the specific country's issues are. Clearly a country like China has a lot of urban problems and a lot of rural problems. So, you'll see projects which are about the pollution and the difficulty of living in huge cities in China; but then you also see projects which are about kids in villages that basically can't get wheelchairs or basic medical equipment if they're handicapped or sick. Therefore, I don't think it is necessarily an urban versus a rural thing. I think it's much more reflective of what the conditions or main needs are, and what kinds of existing resources and traditions a country has, so that you are not doing something that is entirely new and foreign or weird.

Designers often don't consider the whole system and questions about the different aspects that a project must have and the different groups of people and stakeholders that should be part of it. Don't you think that there is still some inadequate behavior from designers or from the way in which we are teaching design that disables an understanding of some key issues like the relations you must establish with the local government or who the stakeholders regarding the project that you are developing should be?

Yes, absolutely and that's not a problem limited to design or design schools. I think the lack of systemic thinking is one of the defining issues of our time. The thing that is a little frustrating about design is that designers and design schools go on and on about multidisciplinarity, when the reality is that if you're really serious about it then you've got to talk to people in the government and people who have absolutely no connection to design but who will have a really drastic

A fully rounded education would force you to spend time on different areas, all the things that are part of the ecosystem that any projects enters into.

effect on whether or not any idea can actually work. I think that a fully rounded education would force you to spend time on different areas, to know about manufacture, finance, medical care, non-profits, all the things that are part of the ecosystem that any projects enters into. There's a professor and writer at Oxford, Theodore Zeldin, who has this idea of a generalist education that would give you over a year of experiences related to many fields. All these things that are the fundamental pillars of our society and our professional and personal worlds; you would have a basic immersion in them, so that you could understand what are their different perspectives and priorities. I totally agree with that. I am a well-educated person, but the amounts of things which define my life now that I had absolutely no training for in my education are totally amazing. I would hope that in the future that could be addressed. Especially because at least one part of a young designer's education—or any young person's education—should actually involve a deep immersion in as many different kinds of aspects of society as possible. ■

Social Landscapes from Afar: Distance and Proximity from Singapore to Mexico

**A conversation between
Chong Keng Hua & Angélica Carrillo**

Examining the role of universities in social innovation projects in the multicultural setting of Southeast Asia, and exploring their impact on design research and teaching, this conversation reveals the skills developed by students participating in social initiatives and their potential for incorporating these abilities in their professional careers.

Chong Keng Hua is the principal researcher of Social Urban Research Group and co-head of Opportunity Lab at Singapore University of Technology and Design. Angélica Carrillo is a professor of CENTRO's Film and Television and Core Curriculum undergraduate programs.

Chong Keng Hua and I first met during CENTRO's Education and Social Impact symposium. His work is particularly interesting for me, as it's not only about social design but also has a multicultural dimension happening in Southeast Asia; the latter is a region of the world that is especially important for me as a filmmaker. Our first approach was about film and media, but we got along extremely well due to his work with students from Singapore University of Technology and Design. As a teacher, it was very impressive for me that Keng Hua has been traveling with his students throughout Southeast Asia, engaging with community, multicultural societies, and social design. A few weeks after our meeting, we scheduled an interview across the waters; we had a very deep conversation about several social design aspects, because our way of looking at the world was very similar. There might be a long physical distance between Mexico and Singapore, but Keng Hua's ideology and mine are actually quite related.

A.C. **First of all, can you tell us about your work at Singapore University of Technology and Design? Because I know you have different levels of work. You have research, practice, you work with your students… So, could you tell us about these projects?**

K.H. So, basically, there are three parts of the work that we're doing as faculty. We have research, we have teaching, and we have service. For research, I have a group, whereby we work with different government agencies to look into certain issues in Singapore. We then come up with some ideas, solutions, and concept of design for them to consider. Currently, I'm the leader of a research team of about twenty people, and it consists of four different groups; each group is looking at a different angle of public housing. One group is working on demography—looking at how the trends of people have changed, lifestyle and so on—and how could we reclassify demographic groups so that we can relate to their needs and aspirations. The second group is looking at the notion of livability, the notion of quality of life, all this idea of how these notions shifted throughout the decades and how do we measure this intangible aspect of livability. The third group

related to how do we translate all these concepts, and demography categories, into design and prototypes. We are looking at both virtual and physical prototypes, because we're also observing two types of communities: the physical one, in real life, where neighbors are helping each other out, and so on; however, more and more frequently, we see people having communities online. And how do we translate these online communities into real communities, and how can we implement new ideas and solutions in real life? I think that's what we're looking for as well. Finally, the fourth group is looking at modeling tools, how can we put all this big and small data into one single platform, so that we can allow the designer, the planner, to see a wider point of view, supported by other data, to make a design decision. So this is the kind of research that we're currently working on.

That sounds like a lot of things to cope with, so how do you transform all of this into teaching?

I'm an instructor for the Capstone Project, where we have students from different disciplines—from engineering and architecture to computer science—coming together, working with industry partners, to see how we can use design as a way to solve a certain issue in real life. As a result, the company can take the idea and actually implement it. This is a multidisciplinary Final Year Project. So I've been working on projects of social nature, because my view is more socially driven; I work with hospitals, I work with health care infrastructure, even small-scale care centers, public spaces, how to reach out to community, and things like that. These are the kind of Capstone projects that I'm teaching. I also give an elective on Social Architecture, how to be more socially driven, translating theories into design. And I also run a design studio, so in the fourth year we look at different opportunities in developing cities. Besides that, our school is quite unique in the sense that we encourage students to initiate their own projects. Therefore, students come to me and say they want to do something, outside the curriculum. Or sometimes I have external projects and I ask them: "Hey, do you want to help with this kind of project?" So we create a kind of co-curriculum project for students to be involved in. So, yes for all this I set up the Opportunity Lab.

When they are selected, they feel very empowered and excited

I also wanted to ask you about your projects in Vietnam. Because I've been reading about it, and I think that's very interesting. Is it easy to involve your students in these projects? I mean, you actually said that they sometimes want to be part of these projects without you asking, right? How do they cope with the projects when you're actually developing them?

Yeah, it's always an issue. Actually, the curriculum is already very packed. But once in a while we have very passionate students, or a student group coming together, and they say: "Hey, we really want to be in this one, explore this…" I had a group of students previously coming to me and saying they wanted to start a community garden in the school. So, I said, "it's a good idea, I'll support you." I tried to get them some support, get a piece of land, on the rooftop of the Fab Lab. And then get them some funding so that they could kick-start. But the issue with that is that when this group of students left, nobody took over.

We have exactly the same situation at CENTRO.

I'm still figuring it out, you know…

Do you think there is a trick to engage them? Like, you know, some secret that could work better with students for that?

I don't think there's a secret. Also, I think it works differently at different universities and different cultures and with different policies. Our university is very supportive of students' initiatives. Like the Capstone projects, some of them are actually proposed by students, and then they get their own funding from outside and do the final project. But it's a minority. Those who propose their own projects, either within the curriculum or outside the curriculum, are usually able to cope with the curriculum. So they have some extra time, or extra energy that they want to devote to; some of them really want to build a portfolio in a certain way to sort of develop a specific expertise. These are the students we want. For the Vietnam project, which I ran for a couple of years… maybe there's a little trick here, I really selected the students very carefully. So it was not any student. I mean, you had to show us why you wanted to be part of the team. They had to convince us, and the way we ran our interview was also quite unique. We didn't just conduct it like a talking interview; instead they had to produce something during those two hours.

So it was not any student. I mean, you had to show us why you wanted to be part of the team

That's brilliant.

So they worked with each other. And we could see the team dynamic. And while the person could have been very talented, if he or she couldn't work with others, then we didn't include him or her in the team. Because this kind of project usually involves teamwork and especially when you go overseas, you are representing the school, you have to be very sociable, and able to conduct yourself properly and have a good attitude. So we looked at every angle, and through that brief two-hour exercise we were able to observe. In the end, we have a selection process where we compare across information, and of the thirty or forty students that usually applied we only selected eight to twelve. So yes, we are highly selective.

That's a good strategy, I think. So…

When they are selected, they feel very empowered and excited. Usually when we look at the team members, we also try to select diverse individuals, who have diverse personalities and skill sets, so that when they work together they are able to complement each other. So far we have run three batches, and every year it has been like a perfect match. They just got along so well, and became very good friends. So, somehow it has worked.

> They really need to dig very deep, layers upon layers, to identify and understand what the inherent issues are

So, you're saying that by working well together as a team I'm guessing they acquired certain skills. Did you recognize some ability or abilities that they developed by being part of these projects?

Definitely. The feedback I get from them is that in school, usually, the classes are more technically oriented. If there's a problem, they try to solve the problem and come up with an idea or solution and that's it. But when we work with this kind of community-based projects, it's not about the problem. They really need to dig very deep, layers upon layers, to identify and understand what the inherent issues are. In fact, maybe there's no problem, but just that there's no champion in the community, or no mechanism (for the community to come together), or things like that… So they have to be more empathetic. There is something they always feedback: that they could actually see much more clearly the feelings or points of view of the people they work with. Their worldview is totally different, especially when they come from another country. So that really changed their perspectives.

That's interesting, because you're teaching new professionals. We know that there are a lot of new jobs around the world; the world is changing, opportunities are changing. So these students go to the world with a new set of abilities that they now can use in their opportunities for the future. What can you tell us about that?

I'm quite conscious about this, because I think the world we're living in does not just need very specialized kinds of people, but you need to be both a specialist and also a generalist at the same time. By generalist I mean that you need to have a set of soft skills that makes you able to identify the people's strength in the team and know how to work with each other—especially across culture, with language barriers, with different cultural notions. So, once they are starting to see that they need to acquire this kind of skills, they are able to apply for a job after they graduate. I'm getting some testimonies from the students; they are saying that many of the things that they learned through this kind of project are really helpful to what they're working on. So even in engineering, in the end, the issue is about the way they manage the project, rather than technical issues. They learn so much from managing projects, running projects, working with each other, and especially in Singapore most of the projects are actually international. They have to go to Vietnam, China, or Indonesia, and understand a new culture, to learn from them and sort of go with the flow. They realize that, besides all the technical skills, they really learnt a lot more from being involved in this kind of project.

> They learn so much from managing projects, running projects, working with each other

And now that you are talking about money, would you say that social innovation or co-design, or collaborative design, are profitable?

When it comes to student projects, I think it's easier to appeal to people who like that sort of crowdfunding, and all that you do to bring things together. But usually we still find issues in getting funding for travel because donors will say: "I want all the money to be thoroughly beneficial to the community, why should I sponsor your students?" I still need a lot of support from the school, from the local community, and from the [philanthropy] foundation, in order to match [the finance] for this kind of project. But when it comes to practice it's even harder. Say an NGO would like to refurbish their centers with a focus on community development, so when it comes to fees, it's always a tricky issue. For them it's also hard to get funding, and they are very tight in budget. But we do recognize that this is also a professional work and that, if you want to do it, you must do it

properly. We also need to get people for the (community) work-shops, to conduct a lot of mapping (of community resources) and all sorts of things. And it's not fair that we don't pay a single cent to all these people; it's a job. If we don't pay them, this perpetuates the feeling that all volunteers are self-sustainable. Over the years, we have been trying to figure out a way to break down the numbers so that it's very clear that this amount of funding or fees are exactly equivalent to the amount of work and there is always output.

On this subject, what is the role of the universities in the creation of these opportunities on funding, on making new jobs and maybe careers for the students? You've been talking about private funding, but is there any government funding?

I think it's a mix of government and private funding. In that respect, we also have to be very clear, because if it's public funding, the university will help us manage the fund and then we will be reimbursed.

Before, you were talking about the language barriers. I think Singapore is a very multicultural country, and you go abroad to do different projects. So how does that affect your work? I mean, there's the language, the multicultural issue, I think even religion is related. So how do you cope with all those issues while working with students?

I think we're fortunate to have a multiracial, multi-religion context in Singapore and people are used to it. We have different races, religions, beliefs, and I think our students respect each other in that sense and are quite used to cultural differences. So I brought students overseas to understand the culture, work with other universities, and for them to look at a different social context and contrast it to how do we do design; currently we're looking—from a new point of view—at a public space, playgrounds, and next year hopefully… we're working on a school project. Of course, when you go to a new culture, let's say, in Vietnam, none of the students know the history of Vietnam and they don't speak Vietnamese. There are differences, but the students are open to understanding and respecting the other culture. However, there are always surprises: to cut down costs during a workshop we printed everything in black and white, and when the community received the invitation they didn't show up. Then we asked the students to go find

If we don't pay them, this perpetuates the feeling that all volunteers are self-sustainable

out why this happened, and the feedback was that it looked like a funeral invitation because it was in black and white. So now we know that next time we need to have colors. These are the kind of things that we have to deal with.

That sounds very interesting. Every country is very different. When I was looking through your work, I was amazed that you're working on all these diverse countries. Last time I saw you I told you that I only know Southeast Asia through their contemporary films. So I have a very weird landscape of it; nonetheless, I was impressed because you've been able to work with all these very different cultures.

Oh, have you watched this new movie called *Crazy Rich Asians*? [Laughs].

No, I haven't but I will immediately!

Well, it's quite hot right now in America, but I must warn you that it's not very representative of Southeast Asia or even Singapore...

I guessed that just by the name... I will watch it anyways. So let's get back to a more serious topic. I know you've worked with the elderly and have studied dementia. I don't know if it's an important issue in Singapore, but I know that in East Asia it is, because the elderly population is now increasing. So, how important do you think is this work with the elderly, particularly In design?

Dementia is highly important. It's probably the most critical social issue at the moment. It's basically the disease of the mind, especially as one ages, and it becomes so serious that we—as designers or urban planners—have to rethink the way the city is operating or the way it's designed. Right now, about one in ten seniors above 65 suffers from dementia. That's actually quite serious. I understand that about 50,000 people in this small island have been diagnosed with dementia. Another 100,000 have not been diagnosed but are suffering from it. So, how can our city and our community be enabled to help these people, to allow them to continue living a normal life in the urban context? That's a really serious issue. Many efforts are needed in this direction. The other 90 percent of seniors are also coping with many other health-related issues, psychologically, socially, like social isolation; this kind of thing also contributes to the way they operate in their everyday life. How can we help them and how do we encourage intergenerational interaction, how can we make the healthcare program, the financial program, even the housing program be reconsidered and come up with new policies? The government is also putting a lot of effort into this.

As designers, we have a lot of skills and we're also able to see things from different perspectives. We're able to bring together diverse factors and references into another level

I'm thinking about what the most important thing is that a designer could provide to society in terms of social needs? I know you work with architecture, and that's a major issue as architecture has been more involved in the conversation about social issues than other aspects of design. But, what do you think that a designer could actually bring to society?

As designers, we have a lot of skills and we're also able to see things from different perspectives. That's the way we're being trained. We're able to bring together diverse factors and references into another level, to propose something that maybe hadn't been thought of before but is yet workable. So these are the skills that we can bring into the community to work with its members. I also think that we shouldn't isolate ourselves, as we can't solve problems by magic. I don't think that's the case. So we really have to be grounded and work with the community to actually collaborate and come up with ideas. I recently edited the book *Creative Ageing Cities*. We talk about how ageing can be a force for creativity as well. Maybe not

individually, but coming together in different groups can produce what we call the *social creativity*. We've been identifying cases where groups of seniors come together and transform the neighborhood into a place that is more livable, not just for themselves, but also for the rest of the residents. Singapore is a highly regulated society; you have to apply for many levels of approval, and maybe negotiation, and all that. Yet we found that many groups of seniors were able to put together their resources, and make things happen in their own way. I think this is the way social creativity is formed and we need to learn from them, work with them and sort of adapt our environment to support what I call *ageing in community.*

The government actually wants the people to help themselves

I totally agree. I actually think that the designer's job is to bring all the forces together. Like, you, as a designer, you can't solve the world, but maybe you can bring everyone else to maybe solve it, right? So I think that's a good asset. And speaking about dementia, I think we need to learn more about that, as it's becoming an internationally critical issue.

How's the situation in Mexico?

It's quite complicated because our population is ageing. So it's going to become a major problem... But the thing is, we don't have many regulations or benefits for the senior population here. They're in a very vulnerable place because the pensions are quite ridiculous; people can't live solely on that. There's a government program in Mexico City for the elderly and they receive a monthly support, but it's not enough. We have a very critical issue there, and it's going to be more difficult in the next few years. It's a very bad landscape for our senior citizenship.

I guess we'll have to exchange notes and learn from each other.

Definitely. Well, and now that you are talking about how regulated it is and how difficult it is to put a project to work… I've been reading about the government in Singapore and I think—and correct me if I'm wrong, please—that the same government has been in power since the beginning of Singapore as an independent nation. I was wondering if there's an issue on the continuity of the projects. How is it?

Continuity here is not so much of an issue because we have a very stable government. They are strong and powerful, that's why people always rely on the government. But now that we're working with both the government and the people, we can see both sides. The government actually wants the people to help themselves. So now the approach is quite different from five or ten years ago. Before it was focused on the people's needs and trying to provide for them. Now it is: "How can we help you to help yourselves?" So, there are different kinds of funds, and they encourage people to apply, so that they can achieve something on their own. Of course, I think it's hard to shift that responsibility to people right away. That's where educational institutions are coming in, to sort of play as a third party, as a bridge. I think in terms of continuity, at least in the next few years, there will be a strong interest in continuing to support the community through all these initiatives. On the other hand, maybe I can share with you my encounter with other cities. I just came back from the Venice Biennale, and there were other architects also working to solve social issues from the perspective of architecture and design. For example, in Taiwan, the government has been changing in the past decade or so, and they face this issue of continuity. For them, working with such uncertainty is common. People have to be very strong and very resilient. The government is still supportive, but the people always drive the initiatives.

We—as designers or urban planners—have to rethink the way the city is operating or the way it's designed

That's brilliant. Thank you so much for sharing that experience in Taiwan because I think that it prefigures the landscape that we want for ourselves in Mexico. We need to be more proactive and self-reliant, and depend minimally on the government.

You were talking about education's role as a bridge between government and society. What is the relationship like between the universities in Singapore and the government? Because I think there are four major universities in Singapore, is that correct?

Actually, right now there are six. They just added two more.

And do they depend on the government or are they independent?

I would say that they are all public universities. But we also raise our own funds because we run many of our own programs, and the government will match that funding. So there's always this incentive to get more private funding.

Sounds like a great relationship, actually.

Well, I think so far it still works.

Well, we've come to the last question. When you visited Mexico City, you probably realized that we have these very clear contrasts on the streets, we have extremely luxurious buildings surrounded by very poor neighborhoods. The challenges over here are huge. How is this reflected in Singapore? Because I don't think you have the same contrast issues…

I think the *Crazy Rich Asians* movie is a good mirror of the contrast through fiction. There are the super-rich, then the rich, then the middle class, and so on. In fact, there was recent debate on social coherence and inequality as well. I think we're always coming up with new ideas, new solutions; challenging the boundaries and of course issues always arise when you challenge something, for example, cosharing of site for social services. This is something that has never happened before because in the past the space usually belonged to one agency. But now, as social needs become more complex, we want to introduce multiple agencies or multiple organizations using the same space. How do we share all the maintenance for these services and all that? Nobody has come across that before. So there are new issues arising, but that's also because we're challenging the current practice. I think that this should be encouraged. The more we do, the more we're able to transcend; that is, we can overcome more complex issues and bring better living to the people.

The more we do, the more we're able to transcend; that is, we can overcome more complex issues and bring better living to the people

After this interview took place, I did a very unusual follow-up for the conversation through cinema. I did go to see *Crazy Rich Asians*—which premiered in Mexico the day after this interview—and understood quite well what Keng Hua was saying about the social contrast in Singapore. It was also very enlightening to observe a Western point of view of Southeast Asia. But, as a filmmaker, that movie was not enough for me. So while I was editing the interview I went to see *A Land Imagined*, directed by Yeo Siew Hua, a film that explores the land reclamation that Singapore is doing by buying sand from other countries and gaining space in the sea to become a bigger territory. The director described it as an exploration of memory and legacy through the rebuilding of Singapore as a country. "Every memory I had, my first kiss, my childhood, is not there anymore. The landscape is changing: Singapore changes constantly, so all the places that might have been meaningful for your life have been destroyed and rebuilt," said director Yeo Siew Hua. Memory, culture, history and identity are the core factors for the building of a healthy society and we all need to hang onto those assets to conceive social conscience and to achieve social impact. Let's imagine a new land and a coherent social reality for both Singapore and Mexico. ■

Talca and the Territory: New Pedagogies

**A conversation between
Blanca Zúñiga & Miquel Adrià**

The Talca School of Architecture has achieved global recognition for its approach to the territory and local resources. This discussion explores its particular pedagogy, student projects, and their gradual impact on the region.

Blanca Zúñiga is a researcher and faculty member at the Talca School of Architecture. Miquel Adrià is the chair of CENTRO's Architecture Masters.

M.A. **Talca is a School of Architecture that has achieved global recognition for its teaching model. You've been working there as a researcher and teacher for almost twenty years. What in your view has been key to the school's development?**

B.Z. The Talca School has always focused on various areas that may have been fundamental in its evolution, and can be encapsulated by the concept of "working with what's available."

The school's unbreakable ties with its territory has defined the most appropriate architecture for the context—a reflection that did not exist prior to our arrival. We closely examine our physical, economic, material, and human surroundings to come up with suitable, and sometimes speculative, architectural proposals, in order to make the architecture more relevant to the experience of living in this particular region.

Our students are vital. Without their boundless energy, none of these core ideas could have been put to the test

Observing the material around us gives architecture a firm foundation, and observing how people live creates spaces for local inhabitants. Taking an interest in the local economy produces a program that strengthens it. This has nothing to do with zealously hyper-contextualizing, but is more of a way of gaining a deeper and truer understanding of reality. This strategy can be replicated anywhere, because it's simply about observing what exists and going from there.

Our students are also vital. They appropriate the school's hypotheses and experiment with them during their studies. Without their boundless energy, none of these core ideas could have been put to the test.

How do you connect architectural pedagogy with recognizing the territory? Beyond a strict, formal speculation, how do people, in a social sense, participate in the process?

I'd like to answer those two questions separately. Firstly, I think that this territory-oriented approach has helped to simplify our pedagogical work. Most of our students come from this region that we initially called Ciudad Valle Central, covering a large area from Rancagua to Chillán, therefore they have a fairly unique relationship with the territory. In around 2000, when we were starting out, we talked in general terms and the students responded in kind. But as we began to focus more on the territorial aspect, their responses became more precise too. For example, in 2000 we did our first *cubo de materia* exercise, (where each individual student makes a cube using a local material), during which we held conversations with students

about where they came from, who their parents were, and so on. Although seemingly a very straightforward process, the results often surprised us by revealing parallel and in-depth readings about a single territory. And as we got more involved in the projects, the responses were equally profound. Therefore it wasn't about turning the territory into some kind of pedagogical weapon, but vice-versa. My perception of this process is that the path became clearer as we went along, as we discovered which tools worked best and how that in itself became a pedagogical tool. It was very interesting when the *cubos de materia* appeared and reflected the students who made them, and the places they had mentioned when talking about their background. This has made our work so much easier in every sense.

This is a focus of my book *Acciones materiales* (2017). Also, during a workshop for the first-year students, I asked the class about the actions to take in the places chosen for their project. "Places" perhaps sounds a little vague, but there is still a certain linguistic depth in terms of what people's lives in those specific places: the local crops, regional diets, traditional livelihoods, and that kind of thing. This led us to discover some wonderful ideas and fantastic names. We ended up recording more than a hundred names of actions that you no longer find anywhere else. The names have been distorted, transformed into something else, but those words and their contents are gradually disappearing. And, by using those words, the students know how to operate; they know how to move their hands, all by using the methods created by the local trades from their places of origin.

So by focusing on specific, local aspects, you can reconstruct a certain idea of territory?

I think so. However, it's not about individual territories but the sum of them. We've unwittingly come close to the idea of chorography. I heard about this concept recently and it chimes with what we've been doing—mapping out the territory, giving it meaning, giving a name to things that are shapeless, impalpable. And returning to the second part of your previous question, the social aspect isn't imposed from outside the project; the project emerges out of social considerations. The students' projects, when we run our workshops, grow from the territory. Graduation projects also come from this same place, but in a very practical way. I don't want to talk about fantasies and castles in the sky. Where do students find the materials to build with? From the place itself—using whatever they can find or what's donated to them. And who do they work with? With local people. And how? Working on what they know how to do, because you can't ask them to create a specific construction that comes from a different world.

However, using materials from the place itself, and the local social structure, makes it a transformative process. In other words, by employing what you already have available, you can create a different or better reality.

As it happens everywhere, they're acting as "translators" on a small scale who take and then shape the material. Details are crucial in many of the projects, and obviously in some more than others. For example, a few years ago we worked with a student on a cherry orchard where farm workers needed a space where they could rest. The student made the project by using materials no longer needed in the orchard. They found some burned fabrics that would no longer be of any use protecting the orchard from certain temperatures in the following season, and had been discarded. And what was available? The workers themselves. And what were they skilled at doing? Tying knots—because they tied the tree branches to stretch them. This type of knot worked because it holds fast and the tree does not react to it, preventing it from returning to its natural position. The student applied this technique for the construction. This wonderful structural detail made the whole thing possible, and means that it wasn't really such a strange intervention.

Students must learn to look carefully at their surroundings, and not to impose their own ways of doing things

Do you think that something unique like that—inspired by local systems, traditions, tools, and materials—is scalable? Could it be replicated under different conditions or in other geographical locations?

I think so. I feel that students must learn to look carefully at their surroundings, and not to impose their own ways of doing things. I think this helps them at the outset to dive into the world of architecture, to develop a way of seeing the world. But once there, they can apply the same approach anywhere. We have former students working in Denmark, for example. You might ask: What can they do there? The climate's different, the landscape's different, the territory's different, the people are different. But it seems like they've coped well. They've simply learned how to be observant and to respond swiftly and coherently to those phenomena. It's therefore no longer a purely local thing.

If cultivating the gaze is somehow a skill the students learn at university, do you consider that this makes the university a potential agent of change? Can it be used as a tool to help transform communities in which they work?

Yes it can, but I also think that we're engaged in a process. For example, we still don't have an exact record of how many of those five hundred projects are still standing. Many have disappeared due to the degradation of the materials that were available. But it turns out that local people who helped out with the original project have often applied for government funding to reconstruct the space initially created by the architecture student. The place or the project therefore transcends the built structure to some extent; it becomes an image—or not even an image, because I think it goes further than that by meeting a previously unidentified need. And if they can give it a name and submit it as a government project, they will probably secure those funds. Previously they didn't know they needed it, because somehow that translation hadn't yet been done.

But have your former pupils done that? Have they continued building that same project on a larger scale, or has it been the community applying for those funds?

The community, taking its own initiative. We've found various cases where the project no longer exists, but the community from that same territory, where previously there was nothing, has built its own version of what had dematerialized with the decomposition of its original, organic matter.

So they were conscious of the need for it?

They became aware, of course. Here's another nice example: Mario Bueno, a student whose project was located on the road to San Clemente, about twenty minutes from Talca, chose a community that needed more communication about what was going on because they lived so far apart from each other. They put up a poster at the bus stop, so Mario designed a very modest project. Using some geometry and basic drawing knowhow, he turned the bus stop into an information point, and when people passed by on their way to San Clemente, it was always decorated—with Chilean flags for the country's national day, with wreaths and Santa Claus for Christmas, etcetera. Recently the Pehuenche international highway was built and the

If you think about it, it's completely crazy how big an impact you can make

structure had to be demolished. But the locals were so adamant about needing a replacement that those building the new road built something fantastic on the same site. It was larger than what they had previously, and with more potential. And that was undoubtedly due to pressure from the community. What I mean is that it transcended both the initial project and the student to become a landmark needed by local residents, who were capable of exerting enough pressure on the Public Infrastructure Ministry to make it happen. If you think about it, it's completely crazy how big an impact you can make.

The student's project sowed a seed that somehow raised awareness of the need for a place where people could meet. The idea developed a life of its own and the community demanded it. But going back to the students who've already graduated, I wonder where they went? Where are your graduates working?

For the most part they work in the public sector, where they've made a positive impact on the region.

Now you have natural allies in government. Because in the early days, I believe the school didn't have a proper contact for your initial projects.

That's right. In that sense we've been a bit inactive about setting up networks that we could have with our former students; we've lost contact with many of them and only find things out through the grapevine, revealing that so-and-so is in the Public Infrastructure Ministry, for example. We do have close contact with some alumni, but there are others we know are working in local municipalities, in government department's regional agencies, but with whom we have not necessarily been in contact. We know that many of our former students work in municipal government public works departments, which has changed the understanding of how these departments operate, especially at a municipal level. These positions used to be filled by agronomists, people from different disciplines. Now, when these jobs are taken by architecture graduates with this particular training, the changes can gradually be noticed. Nothing on a radical scale—they're still very young. But in the public health sector here in Talca they've done amazingly well. If you go into their offices, it looks like one of the school's workshops; they're all fellow graduates working together very well, and able, for example, to gather the necessary

information from everywhere for the new regional hospitals being built. They've succeeded in moving beyond a tick-box approach and in going the extra mile by thinking about the patients and the doctors who spend their whole day there. These kinds of things didn't necessarily happen before.

That's fascinating, and I say that with complete envy and admiration, because we'd like something similar to happen here in Mexico. We already have one former student working in government, but it's still early days. I hope we can learn from you in Talca in this regard.

As I was telling you, we've been improvising a lot on the way in our relationship with our graduates. We still haven't gone into the necessary depth. I admit that we've missed a trick here; we could have done better at keeping track of their movements, even though it's difficult given their job mobility, changes in positions, and so on. With some of them, though not all, obviously, we've managed to join forces in positive ways. Recently I had a doubt in relation to a student working on a graduation project in the nearby municipality of San Clemente, and so I called up a former student: "Hey, do you think there's any chance we can talk to the mayor? Do you know where we can find him?" And so my current student went along, knowing perfectly well where to find the mayor to steal five minutes of his time to sell him the idea.

> Our students are not the same as they were twenty years ago, nor is the economy, nor the climate

And finally, what's your vision for the future of the Talca School of Architecture?

I think the school's future is autopoietic, to use Humberto Maturana's term. It generates itself insofar as it continues observing this territory which, like everything, is constantly changing. Therefore, it would be difficult for the school to remain static, as that would put it in danger of becoming obsolete. Our students are not the same as they were twenty years ago, nor is the economy, nor the climate. The most stable thing seems to be the physical foundations, but inhabitants' interactions with them are always shifting. So it seems that our future is about always being on the move. In which direction? Who knows. The territory will continue pointing the right way—we just have to pay attention to it. ■

Be Curious, Find Out, Do Something: Searching for a Fashion Revolution

**A conversation between
Carry Somers & Mónica Mendoza**

Fashion Revolution seeks to educate consumers, brands, and producers about some of the fashion industry's harmful environmental and social effects. This dialogue reveals the origins of this international organization and the Fashion Transparency Index, a tool to measure brands' impact as well as to track progress and improvements.

Carry Somers is the founder and president of Fashion Revolution. Mónica Mendoza is the chair of CENTRO's Textile and Fashion Design department.

M.M. We should start with your own introduction. Can you tell us a bit about yourself and about Fashion Revolution? How did you start this project and what was the core idea behind it?

C.S. I started my career in fashion twenty-seven years ago and, like a lot of the things I do, it was very much by accident. I'd just finished a master's degree in Native American Studies and I was going to do a PhD in natural dyes and the symbolism of color in the Andes. I was completely funded: I had a grant for everything—accommodation, tuition fees—something unheard of nowadays. When I was in Ecuador doing my research, I had seen two cooperatives and I realized the disadvantage they were at when they came to dealing with the middleman. I decided to do something in my holidays to help them, to create directly with them as a designer, and it was so successful: I witnessed how the people were able to send their children to school because they could now afford the matriculation fees. In just three short months I realized that I couldn't carry on with my PhD.

I think I was probably the first person who put the words "fair trade" and "fashion" together. Fair trade was barely known as a concept; the

> I think I was probably the first person who put the words "fair trade" and "fashion" together

only thing that had fair trade labelling was some really bad coffee from Nicaragua. No one ever talked about fair trade in fashion at all. I think being one of the pioneers in that is what led me to keep on pushing the boundaries. I was so frustrated by so many people claiming they were fair trade, and then you'd overhear them saying that they bought things from the local market. How can you make a fair trade product and buy from the local market? Where's the long-term commitment to the producers? Yes, they might be paid a fair wage—but there's so much more to fair trade than that.

That's what really spurred me onto work on the fair trade certification and Pachacuti became the first fashion brand in the world to become Fair Trade Certified. It was a really useful process for us. We did a lot of incredibly valuable work, which was then actually used by the World Fair Trade Organization (WFTO) around the world in terms of working with producers who have low levels of literacy or are completely illiterate. Only about 30 percent of our women Panama hat weavers had even finished primary education. Most of them could barely read and write, so we had come up with really new visual ways to assess our fair trade impact. So we did things like eco-mapping, where we mapped the workshop and all of the different material flows, chemicals, water, health and safety. Everything was done with colors and visual symbols so that we could involve the producers. They would never have understood any kind of manual. We also didn't think that a top-down approach worked because they would just ignore it. It

was very important that it was an inclusive approach to fair trade. It's really sad that it has evolved in a very different way. If you look at ethical certifications today so much of it is still very much a top-down, tick-box approach.

But these conditions only respond to local legislation, which is incredibly dramatic in a way. If you look at different countries, you realize some of them are living in inhumane conditions because minimum wage is—legally—very low. So people think if poor conditions are legal, then it's alright to work that way.

Exactly, and saying, "well, I pay them minimum wage", even if the minimum wage is a third or a quarter of the living wage. How are you then assessing? How are you working towards that? What are your goals and how are you evaluating them?

I very much believe that to be a sustainable brand you have to be reporting on your progress, because it isn't enough to say, "we're sustainable because we use sustainable materials." What if your energy use, your water use, and your effluents are increasing every year? That's not sustainable. If you aren't able to be economically sustainable, or if it's not bearable for the people making the products, you can't be a sustainable brand. We've failed to talk enough about impact and how you measure impact. Really any brand, of any size, should be open and do some kind of reporting. It's not that difficult to measure the energy that comes from your lighting and your gas, and to move towards renewable energy. It's just a matter of changing your service provider. Even things like measuring what we ship to our customers. It takes some math and some time, but probably only half a day. It's not that difficult.

That's really the only way we could say something is sustainable. For example, our shop reduced emissions by 50 percent over three years, and we have reduced our emissions from freight costs by a certain percentage. Reporting is really important but it's also important that it's part of a bigger management system, because you have to know where you're going. It's really frustrating when you hear brands like Nike saying: "our aim is to double the amount that we're producing in the next ten years," or "we're cutting our emissions by half," at the Copenhagen Fashion Summit. You think it's great that they're halving their emissions, but they're also doubling their production so their emissions overall are staying exactly the same.

If you aren't able to be economically sustainable, or if it's not bearable for the people making the products, you can't be a sustainable brand

I was actually thinking, based on what you've told us, that very often education is thought of as whatever happens inside a classroom. In your experience with fair trade, and later on with the creation of Fashion Revolution, what do you think the role of education has been?

All of us need to keep on learning; there are so many innovations happening. Particularly for sustainable plans, people who come from a background in design or business really don't know where to start. We're faced with such difficult choices and often there might not be a clear choice. Pretty much everything is a choice: if you're a cotton farmer, do you go with GMO seeds, and get into debt as a result? Or should you become organic knowing that you can't sell your product as organic for the next couple of years, and you're probably going to be losing money? There are so many decisions. For example, you're a factory owner: Do you sub-contract to another factory, knowing that it might not have the same good conditions as yours? Or do you ask your own staff to work overtime knowing that you might not be able to pay them and conscious that there's an increased risk of accidents because they're working longer hours? If you don't meet the deadline, you're going to lose 5 or 10 percent on the cost of that order. There's a lot of complexity in fashion and you can't always make good choices, so you have to make the least-bad choice. It's so important to know where you're going and how you're going to get there. I think that's why education is important, because education gives students a framework. So many people leave education and they start off their own businesses and they don't have any kind of framework or support network. Sometimes it's difficult to know where you can get that information. At Fashion Revolution we're all about education, we're about awareness-raising, and that will ultimately lead to change. That's not just for the citizens, although it's incredibly important that we raise awareness globally among consumers.

There's a lot of complexity in fashion and you can't always make good choices, so you have to make the least-bad choice

It's also for the big brands because, very often, they don't realize why transparency is important, or they don't even know what transparency is. I remember two years ago, Chanel was rated on our Fashion Transparency Index and they scored zero. A journalist talked to them and they said: "Well, we do have a lot of things in the Index, we just choose not to talk about it." That was an implicit criticism of our Index. But to us, transparency is talking about what you're doing, and that's exactly the intention of our Index. Of course, Chanel probably has really good practices, but they're not publishing them.

It has been a really interesting educational process for the brands: we've seen Chanel has now published its first Corporate Social Responsibility (CSR) report. But many brands don't understand why this information is important.

Like the major British retailer, Marks and Spencer, which published all of their food and clothing supplies, and they did this in a lovely interactive map that you can click on and get the information. When we sent them the questionnaire, we told them that what's really useful for the NGOs and the union is to have a downloadable spreadsheet because then they can cross-reference it. Just publishing the map means it would be incredibly difficult for people to find out if they are producing in a particular factory. Once they realized that this was the most useful thing for unions, for NGOs, for government initiatives on the ground, then within a week they actually published it as a downloadable spreadsheet.

So I think it's really important to educate brands and retailers as to what information is needed, why it's useful, and why we're asking for it. All of the information in the Fashion Transparency Index is being compiled following a broad consultation with academics, unions, and many different stakeholders. We know we disagree on some things like a living wage, and whether or not it should be time-bound. Pretty much all that methodology has been agreed on by a big group of stakeholders. And I think brands are finding it incredibly useful to know what they should be reporting on and to use it almost as something to work towards. Every year we're getting a lot of messages back from brands saying, "we're using the index as a framework, and this is what we're working towards."

I think everybody needs to be educated, even in government. For example, somebody was asking how the Environmental Audit Committee Report came about, and apparently they said it was inspired by Fashion Revolution. It was our impact that created it. I think our role is to show government how to do this in the fashion industry. People still often think fashion is frivolous and that our choice of clothes doesn't have much impact; they don't realize it's the primary cause of microplastics in the ocean. They don't realize the incredible impact that the fashion industry has on the human rights of women and on the environment. I guess that government is mainly male, maybe that's partly why fashion goes unrecognized in terms of its impact. It's through education that we can go across all those different constituents.

> People still often think fashion is frivolous and that it doesn't have much impact on what clothes we wear; they don't realize it's the primary cause of microplastics in the ocean

I think this is incredibly important. Maybe I don't know enough about other creative industries, but I think fashion has a complexity that is very different to other industries because it touches literally every single person on earth. Whether you're a designer, whether you produce clothes, whether you are a human being who gets dressed, then you're involved in one way or another. In this sense, education is also incredibly complex.

I think these topics really make people terrified but they don't know where to reach out for information. They don't know how to look at things, how to analyze information. And one of the things that you're incredibly good at is dissecting all the information to make it accessible to everyone. Your website gives people immediate access by asking visitors to identify themselves: "Are you a citizen, brand, producer, designer, educator?"

In this sense, who do you think is the most challenging stakeholder to educate? What has been your most successful project with Fashion Revolution?

I'd probably say government, broadly, is the hardest stakeholder to educate. We've been fortunate to receive lots of support in the UK but I think, broadly, we haven't had enough engagement. We've had good engagement on a European level, but not enough in general with governments across the world.

Clearly, we've had the most success with citizens, consumers, and particularly the younger generation, with millennials. Like you said, it's all about "being curious, finding out, and doing something about it." And that's where those statistics come in—people are really shocked by the amount of water it takes to make a pair of jeans or a t-shirt, and the amount of our energy and waste every year.

One of my most successful exercises with students involved taking two pieces of clothing and putting them both on a map. They traced

Education gives students a framework them back to where all the materials came from, or sometimes they didn't know where the materials came from, but then I told them to do the research. One of the participants had a jacket from Zara, and it said it was made from viscose. Now there is some good viscose, and also some very bad viscose, much of which comes from ancient and endangered forests. I asked them to use their phones to google it, and within seconds they found that Zara was linked to really bad viscose practices in China. Then we

looked at the impact of each stage of the journey, so when we looked at something like the raw materials, we searched for water effluents, biodiversity, and labor rights. Just from that one article, she could see the impact of the viscose across all of these different areas. That was just from quite a simple exercise.

All of the students started finding out more information. They found out an article of clothing was made in Turkey, and that Turkey has the third-highest incidence of industrial accidents in the world. They just started coming up with really shocking statistics through that process of "being curious, finding out, doing something."

Once you start to discover, you're going to have more and more questions. But at the same time, it's about giving people the tools and making them realize it's not actually that difficult. Brands like Zara are quite good—you can send them the barcode and quite often they will respond and tell you where things are from, their processes, and facilities. If not, there's enough information out there for us to do the research ourselves. I guess that's where the Fashion Revolution MOOC (Massive Open Online Course) "Who made my clothes?" has been really successful because it has given people the tools to find out that information. Whether you're looking at something traditional or something mainstream, the question is: Where do you go to find out information? If the brand won't tell you, what's your next step? We've had such great feedback about that MOOC twice now. We are now running a new MOOC on "Fashion's Future: The Sustainable Development Goals."

Some data is great for raising awareness, but it leaves people feeling powerless and thinking they're part of the problem

Some data is great for raising awareness, but it leaves people feeling powerless and thinking they're part of the problem. We need people to be a part of the solution, and that's where we need to give them the necessary means and say: "You are powerful". For each person who asks: "Who made my clothes?" brands take them as 10,000 people who might feel the same way but aren't necessarily doing anything about it. That shows our power. Giving people really simple tools and then taking them deep into more complex information is really valuable. I guess that's what we're trying to do in our fanzines, enabling people to change the industry. Whether it's writing to your favorite brand or a policy maker, running an event or campaigning... it's a progression. As people become more educated, they're increasingly willing to do more because they start realizing the complexity and magnitude of the problem.

Maybe we could discuss Mexico. You've been here several times and you've been in contact both with artisans and companies on a larger scale. What do you feel is the biggest challenge or opportunity for a country like ours? And we could think of Mexico as a representative of several countries in the world that share similar conditions and education levels.

I'd say the biggest challenge we're seeing is the lack of transparency in the mainstream brands. We only have one Mexican retailer, in the Global Index, and they don't score very well. I had a meeting with a potential research organization for a Fashion Transparency Index in Mexico, which we're hoping to launch next year. We suspect that most of the major brands and retailers will have very little in place in the way of policies and procedures, impact, and CSR reports. So I think our biggest challenge is going to be educating them as to why this is important.

Having said that, there's a really successful index in Brazil, and we really saw the progress from the brands. Between sending the brands the questionnaire and their scores they've been able to tell us whether we've missed any information—several brands completely remade their website and published twice as much information before they sent the questionnaires back and doubled their scores. So we've found an opportunity there. If Mexican brands get to know that Brazilian brands are scoring higher than them then maybe we can get them into the spirit of competition, which always works really well.

Another great opportunity is seeing how many young, passionate design students there are here who are willing to go out there and set up, compete, and collaborate as well. It feels like there's a lot of collaboration across not only fashion but across different design disciplines working with communities. Particularly, working with artisans, there's so much potential for coming up with new approaches to business. The old business model is so fragmented that we can't keep on replicating it. We need to talk about how we can really collaborate with architects, communities, technology, and look for completely new solutions which aren't necessarily based on producing more new clothes. I've heard that H&M collects secondhand clothing at their clothes banks in Mexico, but buying and selling secondhand clothing is illegal here so they can't do anything with it. So it's piling up in their warehouses. Presumably, you can sell upcycled clothing made from secondhand clothing. You might not be able to simply resell it directly, but what a great opportunity for students to do some really great upcycling and to use those resources—which H&M is probably spending a fortune only on storing.

> I'd say the biggest challenge we're seeing is the lack of transparency in the mainstream brands

It's incredible how an industry that is based on innovation has such obsolete practices embedded in the system. When you think of how much the fashion industry pollutes with what it produces every year, month and week, there's irreversible damage. It's unsustainable.

Yes, emissions from the garment industry are more than all the international air travel and sea freight combined. I did a talk recently at a travel agency and I was saying: "You probably think the biggest impact of your holiday is your flight. Well, it's not. You have a much bigger impact through your clothing. Particularly through buying new clothing for the holidays and then discarding it." So many people do that. I did some lecturing on cruise ships and my friends said to me: "Of course you're only taking one outfit. You'll buy the rest when you're there, won't you?" I was shocked; that's clearly what they do, and they travel a lot, and they just go shopping and probably leave it all there when they come back again. It's not just the people buying cheap fast fashion; these are older women with lots of money.

Many young, passionate design students are willing to go out there and set up, compete, and collaborate as well

I think in the next five or ten years there's going to be a change in production. For you, how does the future look?

There's a lot changing in the way people consume. Looking at things like Rent the Runway, they've really grown; they've just received a new round of investment. I always tell my friends and staff to buy Vestiaire, you can get brand new clothes for much better prices. You can even buy new clothes with the tags still attached to them.

I don't think many of their pieces have ever been worn, and people don't really know this. There's a real education to be done in terms of different ways of shopping, in terms of renting, finding really great secondhand designer clothing. Just looking at different models I can really see that good secondhand market and rental market are growing. It was amazing, I was in Sao Paulo in November and just walking around I saw many clothing libraries. Just little shops where people can go and pay a monthly fee and just rent their clothing. Consumer behavior will change, and I think brand behavior is going to slowly change. Ultimately it has to come down to changes in the law, because some brands are never going to change unless the law changes. You always have the pioneers like H&M and Adidas, who really are doing a lot in terms of sustainability and transparency. But you will also always have companies who are laggards and that's where you need modern slavery and due diligence legislation—both local and national legislation—as well as implementing the legislation that already exists. In so many countries in Latin America there are laws written into the constitution but they're not implemented. That must change. ■
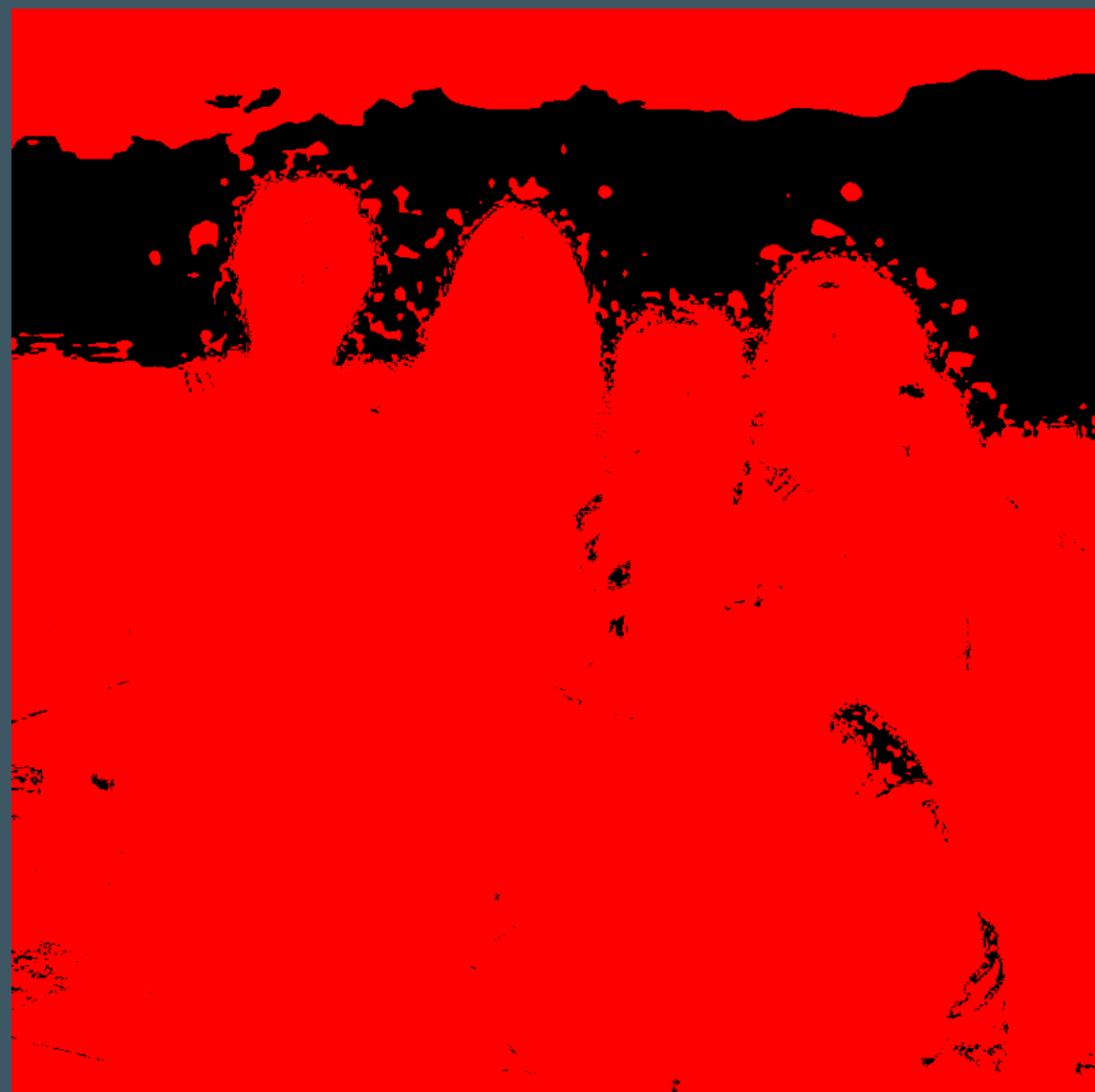
New Challenges, New Focuses, and a New Generation of Designers

A conversation between
Carla Cipolla & Paulina Cornejo

A panorama of the changing nature of the design field, and the importance of sharing knowledge and experiences, in the context of DESIS international laboratories, this exploration of similarities and contrasts in design projects for social innovation in Mexico, Brazil, and Europe considers the future professional pathways of a new generation of designers seeking to make a positive social impact.

Carla Cipolla is the international coordinator of the DESIS laboratory network and faculty member of the Universidade Federal do Rio de Janeiro. Paulina Cornejo is the head of CENTRO's Social Design Hub.

P.C. **Over the past fifteen years we've seen a boom in social innovation laboratories and projects, and design schools have been no exception. In this context, how would you describe the international DESIS network?**

C.C. DESIS is a network of fifty laboratories—called DESIS Labs—located in design schools around the world. Its main objective is to broaden the field of design to include certain areas that have not traditionally been seen as a priority. One example is the modification of today's patterns of production and consumption to systems that are more sustainable or trigger social change. We've spent the past ten years working toward this aim and obviously today we're not alone in our efforts. As a network, DESIS facilitates the sharing of knowledge among members, increases the internal and external visibility of projects, and helps bring about changes within universities. The network boosts our work, since each member works on similar issues locally. DESIS is resilient because we can operate without quotas and benefit from the support of universities' regular functions —such as teaching, social impact projects, research—and therefore it connects with the traditional work and missions of universities.

What do you mean when you describe DESIS as resilient?

From the university's perspective, DESIS operates in three internal dimensions. Firstly, in the classroom, we set challenges for projects that offer new educational experiences to students and allow them to explore different design perspectives; secondly, through paradigmatic projects involving students, either within a laboratory or a classroom setting; and finally, as researchers, since we learn from these new approaches and produce structured knowledge that is published in articles, books, etc. These results reveal the changing nature of the discipline and that we're forming a new generation of designers who can handle new challenges and operate with new focuses; although perhaps the challenge is that they require new places in which to work. This means that the knowledge generated by these students with their projects can be codified to change environments.

Could you talk about how this is reflected in practice?

DESIS adapts to the specific university and its context. For example, Brazil has a policy requiring universities and their faculties to develop and register social impact projects as part of their work. Students, meanwhile, need to accumulate several credits in social projects in order to graduate. Social impact projects therefore constitute an important component of education and in fact the government recently increased the number of credits required. In my view this makes social projects more academic, turning these credits into a kind of exchange currency.

Something similar happens in Mexico. The country's Constitution requires all undergraduate students to complete 480 hours of community service. However, student experiences aren't necessarily linked to learning, nor are they always formative. I think this service needs to be understood as an essential part of education for professionals who are responsible in their decisions, communities, and surroundings, and not as a requirement whose (compulsory) exchange value is rated as an act of altruism or philanthropy; perhaps that's how they approach this in Brazil.

I agree. Students participating in my projects get involved in various duties and functions, sometimes even helping to manage and implement a particular activity or community event, or collaborating with other organizations, but this always forms part of structured academic projects seeking a specific social objective. In Brazil we have a network of public universities with a common agenda. For example, these universities must give back something of value to the society that supports them. This implies a general social commitment not limited to certain groups. One of the DESIS Lab projects that I've been developing is called SISU—the Federal University of Rio de Janeiro's Social Innovation Support Unit—which seeks to empower social innovation processes in the city through design thinking and practice. Students take part in service design activities related to social innovation. I see a clear impact on their education: students must interact with social innovators and with transformative ideas for Rio de Janeiro. Outside the project itself, it also puts them in touch with consultants and companies. This gives them a broader perspective on the practice of design and its possibilities and—through the DESIS Lab—they're plugged into other experiences around the world.

Universities must give back something of value to the society that supports them. This implies a general social commitment not limited to certain groups

In common with other initiatives, DESIS points to a shift in the system and in ways of considering the world of design. But what does the future hold in store for the careers of a new generation of experts, and what are the challenges in a world that has been changing at different speeds?

It's a process of awareness-raising and progressive social learning. It's a major transition for society because creating a new role for designers focused on social change projects doesn't automatically trigger new projects straight away. Hence the importance of projects that show society and stakeholders the new role of designers; in this case, the inclusion of students in that role. I think that the most important legacy that those of us working in this field today can leave our students is for them to have careers as agents of change anywhere. This is possible thanks to the university offering students the experience and certainty of having been there before, equipping them with an understanding of the challenges involved and the tools required. But we should also realize that we're at a transitional moment for sustainability and equity, and that we must be able to identify those spaces, even in labor contexts where social impact isn't on the agenda. This is necessary for changes to take place. Perhaps the challenge lies in opening up these spaces to make changes on different fronts.

> The most important legacy that those of us working in this field can leave our students is for them to have careers as agents of change anywhere

What kind of spaces do you mean? What sort of jobs do your graduates have?

Our former students work, for example, designing services, as well as in consultancy firms, where they help raise awareness about design for social innovation through presentations and conversations. Some have even developed entrepreneurial and social innovation initiatives. In another case, our university's incubator created a startup that develops solutions for the ageing population.

You mentioned opening up new spaces for change. I think that, although this opening isn't applicable in the same way or in the same time frames in every case, it also seems that the existence of networks such as DESIS has helped make connections to a tremendously diverse world of actors and initiatives. Could you go into more detail about how these shared interests and visions from DESIS can be useful in such varied contexts?

That's right. I've been able to see this very clearly in DESIS and, therefore, knowledge-sharing is very important. I can now also see that my colleagues elsewhere are developing very inspiring initiatives with local governments. This is partly due to them operating in smaller cities, where it's more feasible to contact local governments and propose services that are often experimental. Rio de Janeiro has a population of almost eight million, and making direct contact with local government is a challenge for our DESIS Lab. It's certainly possible to make changes but the scale, dimensions and local context are very important for this to happen. The DESIS network has helped me discover new initiatives and models in which design has produced knowledge and evidence, and it has shown me ways in which to show potential local partners how design can be advantageous when promoting innovation in public services. A mutual learning process is crucial in social impact design or innovation, where the context makes all the difference. For example, something can be socially innovative in Rio but not in Mexico City.

A mutual learning process is crucial in social impact design or innovation, where the context makes all the difference

From what I've seen in recent years, some universities in the United States and Europe are moving beyond academic theory to incorporate design for social innovation into other disciplines. I'm thinking about designers who are taking people-centered design approaches to public health services, designing policies for senior citizens and services for the city, and other such initiatives. For me it's very heartening to see that, over the course of the next decade, our universities may be able to also educate designers specializing in this area and, as you say, open up new spaces for change.

Apart from international attempts taking an expert approach to these issues, I also see very worthwhile projects in countries including Mexico and Brazil tackling specific challenges, very organically, in areas including poverty, housing, and access to basic services. What are your thoughts about this?

We must remember the distinction between technological innovation and social innovation. Participatory budgeting—as a social innovation—was developed in Brazil, in Porto Alegre, inspiring similar initiatives in other cities elsewhere, for example in Mexico and Europe. In answer to your question: I believe researchers, students, teachers in the DESIS network—in the United States, Europe, Mexico, and Brazil—are taking part in a mutual learning process.

When I carried out research for the Transformative Social Innovation Theory (TRANSIT) project, I analyzed the case of DESIS, which included laboratories in Europe and Brazil. I noticed different yet complementary approaches in the various countries. Our analysis revealed something interesting: the DESIS Labs in Europe worked by thinking about the future, about the next step, about what was needed to achieve certain things, about strategic scenarios for development and change, etc. In contrast, the DESIS Lab in Brazil was looking to the past, seeking to include all those previously left out, so that they could participate in future projects. In Brazil, the focus is centered on certain issues from the past still pending resolution in order to create a better future. It was a stimulating conversation. This doesn't mean that European countries aren't also carrying around their own baggage. But Latin America has experience coping with particularly heavy baggage and looking back to incorporate those who have been excluded; countries in Europe and the United States, meanwhile, can remind us of the importance of developing a strategic vision for the future. To a certain extent, both visions complement one another and there's a kind of crossover between them.

What do you identify as the main confusion in the relationship between design and social impact?

Many designers seem to think that they must travel long distances to have a positive social impact. For me, designers should make changes right where they are. If we were trained to work in our own context, we'd know how to operate within it.

In some of my workshops I like focusing on how participants can improve their own neighborhoods, since most of the time we apply our abilities on designing for others and making a social impact on others. Very few spaces exist where designers see themselves as agents of change in their own surroundings. We're well aware that social innovators design for their own contexts and we should learn from them—and that's actually what we're doing. This isn't an issue that only applies to design. I teach engineers, but they're never taught to change their own situations in their home environments. It's something that I'm exploring with them, as I think it's very interesting that they can face the challenge of proposing initiatives on their home turf. I base all of this on the philosophy of Martin Buber and his work on inclusion, which alters how we design for ourselves and those closest to us.

Designers should make changes right where they are

In my experience, many students—and professionals— are confused because they think they won't be able to, or shouldn't, monetize social impact. Thinking about it in more depth, this is like suggesting that it's not OK to receive payment for projects that make a positive impact, but it's fine to be paid for projects that add no social or environmental value and, worse still, destroy it; for example, products that have short useful lives, are highly polluting, and do not place value on chains of production, etc. Paradoxically, many of those who have built successful careers based on these models spend much of their time and resources on pro-bono projects. Wouldn't it be easier and more logical to incorporate an integral vision, where the responsibility of the design and positive impact are assumed as a core part of their profession?

Yes, I consider that part of this relates to the transition from old to new models, which we can see all around us: alternative currencies, FOREX, timebanking and Local Exchange Trading Systems (LETS). Positive impact projects can be based on different models. Some of these models—such as social business or not-for-profit initiatives— could be considered by design students.

Of course. I also think we should rethink, within today's context, the work of iconic figures such as Victor Papanek and his idea that designers should work on a pro-bono basis, or Buckminster Fuller, for whom designers faced the dilemma of choosing between earning money and doing things that interested them.

We all deserve to be rewarded for our work and for me it's sensible to discuss this issue. One of the key things is to determine what is a fair economic reward for the value that you're contributing. What really matters is being coherent with what you do, with your values, maintaining a quality of life and sustainable level of consumption. It's absurd to have an unsustainable lifestyle and wanting to compensate it with unpaid social impact projects.

How do you relate this with the DESIS vision, and how do you think these ideas can be passed on to students?

The network of design for social innovation and sustainability incorporates a vision in which considering others implies maintaining a level of consumption that's sustainable for the planet. However, the pace of linear consumption is unsustainable; it isn't a coherent system. My view is that we must work with students to deepen our understanding of these patterns, particularly because our lifestyles and aspirations often make no sense. Perhaps coherence is the key word; in other words, seeking lifestyles that are more aligned with our values. The term "sustainability" in DESIS is influenced by a system that isn't very visible but refers more to how we connect and integrate different parts of a system. Put differently, if there's poverty it's because a concentration of money exists somewhere and we must think about how we can participate in that. The problem is that often we don't even realize our lack of coherence. I need to look at myself all the time to check whether there are contradictions between how I'm living my life and what I'm teaching my students. This includes a reflection about how we develop as people—how we become who we are, and how we can gain awareness about what we want. ■

> The pace of linear consumption is unsustainable; it isn't a coherent system. We must work with students to deepen our understanding of these patterns

Entrepreneurial Leadership for an Uncertain World

**A conversation between
Cheryl Kiser & Gabriela Traverso**

The Lewis Institute for Social Innovation at Babson College integrates social innovation and entrepreneurship within its curriculum. This conversation explores Babson's entrepreneurial methodology and its link to social design, the implementation of entrepreneurial leadership in the public sector, and the mentality and tools needed to navigate an uncertain world.

Cheryl Kiser is the director of the Lewis Institute and Babson Social Innovation Lab. Gabriela Traverso is CENTRO's chief academic officer.

G.T. **Considering that at Babson you are experts in entrepreneurship and social innovation, how do you approach and teach these topics?**

C.K. At Babson, we educate entrepreneurial leaders who create great economic and social value. When you add the entrepreneurial element and the social design component to creativity the result is something pretty powerful. Last summer, Cheryl Heller and I created a program called Entrepreneurial Leadership in the Social Sector. However, we could have called it Entrepreneurial Leadership and Social Design because it considers the two methodologies, i.e. of how problems get solved and how people can create. We worked with the social sector and said: "Bring forth a challenge, because we're going to teach you an entrepreneurial mindset for how to address it." Most people in the social sector are not entrepreneurial thinkers and actors; they are very passionate about the problems they're trying to solve, but sometimes they haven't really looked hard enough at the ecosystem and the environment in which that problem exists. The reason I love entrepreneurial thinking and acting is that it's a democratic process. At the end of the day, not everybody is going to go and pursue a college degree; but we do want people in their own communities knowing how to solve problems. If we can move the world in that direction, that's the most important thing. And it can only happen with an entrepreneurial mindset.

> The reason I love entrepreneurial thinking and acting is that it's a democratic process

Yes, applying entrepreneurial leadership in the social sector sounds crucial. What do you mean, specifically, when you say that people in the social sector are not "looking hard enough at the ecosystem and environment in which the problem exists"?

We try to use problem training, mapping, prototyping, small experimentation, and we work really hard on language and having participants communicate what their challenges are in a very clear way so that everybody understands. Social design and entrepreneurship are part of the same cycle of how you take action. We ask people to map their ecosystem; if we're trying to solve poverty in this community, we're going to make a map of all the people that are looking at that issue: homelessness, food insecurity, rates of incarceration. We're going to look at a lot of different elements to understand the problem. If you don't map it, sometimes you miss something crucial. You can see a very different picture of the problem when you see it from multiple perspectives and the ecosystem that it lives within. Every community is different. Just because you've mapped an ecosystem in

Boston does not mean you're apt to solve the same problem in Mexico City. It's very dependent upon context and individuals. Social design and entrepreneurship go hand in hand, because one is a process for understanding and the other is a process for taking action and building on what you learned. Entrepreneuring is really all about acting, learning, and then letting that inform your next action towards moving the venture or social solution along.

I know Babson has a very powerful methodology for entrepreneuring. How does it work?

Babson's methodology, called Entrepreneurial Thought & Action, starts with the questions: Who am I? What do I know? Who do I know? What resources do I have at hand to take my first action in the direction of something I desire to create? Importantly, when I say "resources" I mean relationships, social capital, time. You enroll others to join your journey. You socialize your idea; you engage people; you ask them their opinion and lots of other things. The more people you enroll, the more you're able to understand and collect data around what you're trying to create. Then, you take an action based on all of what you just learned. You can't solve problems just by thinking about them. In any endeavor, whether it's an entrepreneurial endeavor or solving a social problem, you have to map and understand what the problem set is. Next, you build on what you learned, and you check in to make sure that you still want to do it. We could summarize this as: act, learn, build. That is the core of Entrepreneurial Thought & Action methodology. You start with desire; you formulate what you think you want; you pay only what you're willing to lose, and you enroll others as you take action.

Who am I?
What do I know?
Who do I know?

So it sounds like a formula, but what about the risk factors? How do you approach them?

Our methodology encourages taking swift, confident, smart action even when faced with the unknown. Therefore, you pay only what you can afford to lose. At Babson, we call that "affordable loss" instead of "risk". In uncertain times, and with complex problems, long-term plans don't work well. We teach how to make small experiments to test and refine direction based on real-time feedback. This type of prototyping is a hallmark of the creative process. It allows you to move from theory to action without risk. Surprises are good. A surprise

can lead to new opportunities. When you do these things and you fall into problems, you fail or you make a mistake, what you actually have is a competitive advantage because you now know something that nobody else knows.

That's really interesting. Something else that strikes me about your work at Babson because it's not that common to see is the entrepreneurial side of social design or social innovation. Why is the entrepreneurial focus so import-ant to you as a school, as a model, as a way of trying to educate people in this way of thinking, in this mindset of changing things around us?

First of all, Babson is probably the only college that requires every stu-dent to take entrepreneurship classes. That is fundamental to our DNA. We believe at Babson that entrepreneurship and entrepreneuring is the most powerful force on the planet for solving problems, navigat-ing uncertainty and for creating things that you want. I also believe that entrepreneurship needs to take a look at the importance of so-cial design. I've been approached so many times by students who express interest in social issues. The conversation goes like this:

– I think I want to start a non-profit that helps people
  understand obesity.
– I get that; I appreciate that you care about obesity,
  and I'm delighted that you learned about it in class as a social
  problem; but what do you know about it?
– I just learned that obesity is preventable and causes 70%
  of preventable diseases.
– Ok great, but have you ever been obese?
– No.
– Do you know anybody that's obese?
– No.
– Have you ever talked to or been around obese people?
– No.
– Then what do you know about obesity? You don't full understand
  anything about it; you only know what you've read.

So, the reason social design is a great complement to entrepreneurship is because you're asking people to develop the empathy to understand what it is they're trying to solve.

Yes, that makes a lot of sense.

I appreciate that our students want to solve the UN Global Goals, but how many of them deeply understand and have mapped the problem enough to know how they can uniquely and effectively contribute to the solution? If you don't really help them with the reality of what it takes to solve a social problem, they'll give up way too easily. The world needs problem-solvers, social designers and entrepreneurs because that's the only mindset that's going to address our toughest challenges today. So, entrepreneurship without social design leaves you without certain tools that help you go deeper, in order for your solution to be adequate to the problem in question.

Can you give us an example?

Yes, a good example of a problematic social business is Toms Shoes, founded by Blake Mycoskie. Mycoskie wanted to solve the problem of lack of shoes in children around the world, so he developed a buy-one-give-one-away shoe business. However, even if his intentions were noble, he never looked at the fact that there were poor people already making shoes in places like Guatemala. If he had mapped the environment adequately, he might have come up with a very different solution in which he actively engaged the community. When you map the environment, when you frame the question correctly and understand what you are aiming to solve, when you prototype and experiment in small cycles, then you are able to see different alternatives early on. Toms Shoes had a great impact, but it also produced negative consequences. So, what we try to get our students to do is develop things through a systemic approach with a social designer's mindset.

Can you explain what the entrepreneurial and the social design mindsets brings to the table? Is it a human-centered approach? Is it empathy? Is it a methodology that allows framing more complex problems in such a way that all dimensions become available?

When people think about entrepreneurship, they think of the Mark Zuckerbergs of the world: "I did it on my own and I'm going to conquer the world." That's not the entrepreneurship we're talking about. Entrepreneurship is not an outcome. It is a mindset, a habit, and involves the intelligence that is required in an increasingly unpredictable and oftentimes unknowable world. We can't actually look at the past to predict the future; that used to be possible in a predictable world. Navigating uncertainty and all the ambiguity and the complexity requires not just an analytical mindset, but an entrepreneurial one. Cheryl Heller and I always talk about how there's a need to ignore conventional wisdom, think counterintuitively, design for relationships instead of transactions, and hack the traditional processes. We need a new entrepreneurial mindset in order to do that; the result is a way of working that might challenge the common approach. For example, there was a scientific way to do market research and marketing to figure out what you should be doing. Nonetheless, social media has disrupted marketing plans because the people who are the marketers are the same people who are on social media. No one can predict if someone will like your product. Most serial entrepreneurs don't put a lot of credibility into studies, they prefer reality. Entrepreneuring is about taking a small step, engaging with others, acting, learning from it, and then taking your next step.

We can't actually look at the past to predict the future

That's great. It's really a very complete process and methodology that can allow for a new take on ideas and to encourage people to think in a non-linear way. What you have described as the entrepreneurial mindset is what we describe as the creative mindset.

Yes. What I just walked you through was precisely the creative process. Now, when you add social design to it, then what you're doing is putting that process in the heart of everything you do. However, what you also need is more data and information. So, in order to solve a social problem, you need to engage with other people. That's why it is called *social* design. You really spend time on the framing: framing the right challenge, the right problem, and the right dilemma. Once you frame, then you have to map your environment, you have to prototype what you want to do as a solution, and then you experiment. It's also part of the creative process, there's only some additional nuances and more tools in your toolkit for getting at the social aspect of it.

Regarding the big companies that have their corporate social responsibility (CSR) areas, what would you change to this approach—which is usually isolated from the core business—in order to make it a comprehensive strategy of the whole company?

You can go online to Babson X and find the course "From Corporate Responsibility to Social Innovation". We believe that when you use an entrepreneurial thinking and acting mindset, you move from philanthropy, compliance and transactional CSR to social innovation. When I think of social innovation, I think of Greyston Bakery. Thirty-five years ago, its founder had the tagline "We don't hire people to bake brownies; we bake brownies so we can hire people". It involved an open hiring process in a very poor community with a very high rate of formerly incarcerated people who came out of jail and usually couldn't get jobs. Considering this problem, the founder of the bakery said that the formerly incarcerated individuals should put their name on a list and, if there was a job opening, he would hire them on first-come, first-served basis. A different case involves a Babson alum, Jeffrey Brown, who created the first most profitable supermarket in a food desert. He uses open hiring and has created a school to train former prisoners; as a result, other businesses want to hire them because it is breaking the cycle of poverty. He could have done CSR or given out food but instead he mapped the community and said "a third of the population that I'm trying to sell food to are formerly incarcerated. They have no money to buy my food." Therefore, he trained them to work at his grocery store and now they have money and are candidates to work at other businesses in low-income communities. These cases raise the question: how are you using who you are, the industry you're in and the things you have, to help address any number of issues in your communities? When you map your environment by looking at the sector that you're in and the resources you have, you are able to involve people in your business and not just in finance, marketing or supply chain. As a consequence, you actually allow them to be problem-solvers and create greater value for and in your company.

> When you map your environment by looking at the sector that you're in and the resources you have, you are able to involve people in your business

So, social challenges can be market opportunities...

I think that entrepreneurship and social design are the greatest tools for creating greater value. Think about what most CEOs of large companies care about. If you asked a CEO what keeps them up at night, they would answer something like: profitable growth, lack of innovation, a disengaged workforce, and the difficulty of connecting with society. Imagine flipping that around and saying: "If you bring in people to help you creatively connect your business to society, then you will be able to engage your employees and their problem-solving skills because millennials want purpose in their life. If they're engaged, they give you their discretionary effort and you will be able to generate innovation and achieve a profitable growth. The only way companies today are getting profitable growth is either by laying people off or merging and acquiring. That's it.

> Entrepreneurship and social design are the greatest tools for creating greater value

Absolutely. Do you think that such a change of mindset will come? Are we training people that are going to lead the way in favor of these kind of changes?

I think that you're educating the people that are going to lead these companies. You're educating creatives, and most people will tell you that creativity is the new premium for anybody. So, if you are teaching how to be creative, how to build a creative process and not get discouraged but get energized by it, then you are creating the most desirable people to go into the workforce. I'll never forget when Len Schlesinger, our former president, gave a talk to our incoming MBA class. He said: "Let me be really clear: the world does not need another MBA who understands marketing, finance, accounting, supply chain, technology and operations. These are things that everybody is going to have to know, and issues are going to change because industries are changing. However, what the world does need are entrepreneurial thinkers and actors." What this meant was that we need people who know the creative process.

We completely agree with you. Now, regarding higher-education institutions, what do you think are the challenges for universities to incorporate this mindset in teaching young professionals to impact their context, to try to achieve more complex solutions for the problems we're facing?

Higher education has been traditionally based on the expert model. You have to flip it because no one is going to actually know the answer to what you're trying to solve. I think the biggest challenge for achieving a completely creative and social design approach is that it has to be transdisciplinary. So, we need to break the silos of academia in order to break free of the fear of the unknown. I believe that being able to involve universities in innovation and action-taking is the new role of higher education. Many times, it's not teaching students what they need to know but teaching them who they need to be to do what they want to do. Babson does a great job of teaching students what they need to know in order for them to do the things they want to do. However, we are not doing a good job teaching them who they need to be in order for them to be able to create immersed in a world that's increasingly more complex and unpredictable. That takes a whole set of personal adaptation, competency, and mastery around the soft skills of life to be able to navigate being both good social designers and entrepreneurs. Therefore, I think you have to be willing to create more open innovation spaces and have the instructors be coaches, guides, experts, as well as creatives, and have the time to cultivate that creativity. You only get good at creativity by constantly creating, learning, failing, building and experimenting.

You only get good at creativity by constantly creating, learning, failing, building and experimenting

This sounds like an incorporation into the university of the kindergarten mindset, in terms of a more experimental, creative, hands-on, and real learning process, where you engage people and circumstances and real projects into an active practice.

That's right. Some years ago, I read something by Robert Fritz, who wrote the book *Creating.* He was a musician, and he taught the creative process to a bunch of us, based on his understanding of music and music theory. What's interesting is that if you go to music school and you learn to play the piano, you're going to learn theory, as well as all kinds of things, but you're also going to practice constantly to get good at it. If all you did was theory and no practice were involved, then you would get out of school and could never be a pianist. I think it's the same way with business and creativity: you have to teach the frameworks and theories, but then the focus of higher education has to be the place where you are practicing it and creating it as a way of living. At Babson, we create both a living and learning environment. Our students have to solve problems with their roommates, in their dorms, based on the entrepreneurial mindset, and not just in the classroom. Also, you have to cultivate a bias towards action, not just thinking. A lot of higher education is biased towards thinking and not acting.

> **The focus of higher education has to be the place where you are practicing it and creating it as a way of living**

What do you think regarding how we can measure if we are being effective, if we are achieving what we want with these kinds of projects?

First of all, I think it's an orientation towards how you want your students to learn and how you want to teach. If you look at Paul Quinn College—once a failing college in one of the poorest areas of Dallas, Texas—it is a historically black college (HBCU) and most of its students live in a food desert. They are very poor and have very limited opportunities available in the future. When Michael Sorell comes in as an entrepreneurial president, the first thing he does is to get rid of the football field. He turned it into an organic farm and he taught everybody how to do organic farming. Then he sold the food to make money. He realized that the majority of his students were food-insecure; they were going hungry; they weren't buying books because they had to eat. Everything he did was based on entrepreneurship.

They were located about a mile away from a garbage transfer station. They used that as the classroom to teach people about sustainability. He was very smart about using the resources he had at hand to turn his college intro an entrepreneurial ecosystem. Everything he did, he did by acting, and the way he measured it was based on accomplishments. So yes, you're going to look at the MASE scores, critical thinking, resilience, creativity, reflection and analytical mindset. But, at the end of the day, you're going to notice it because you're going to feel the difference in the culture of your campus, due to the fact that everyone is going to have this bias towards taking action and doing things. Our students are constantly creating things. We basically ask people to entrepreneurial think and act their way forward. In other words, just try things and we'll support you to do it.

Therefore, is implementation a big measuring criteria for you?

Taking action and doing it. Failure is not a measure; we would prefer that you try something and not do it again, than for you to not do it at all. So, I would measure the following: How many things are our students starting and activating? What are they doing with it? How are they taking action? How effective are they? How do they use themselves? How do they use the process? How far along in the process do they get? Because you can have measurements on this regard every single step of the way. ■

Social Design as a Relevant Discourse

A conversation between
Ignacio Urbina & Ashby Solano

Two industrial designers reflect on the increasing importance
of social design, the technological boom, and students' relationships
with digital tools. They also discuss the role of schools and design
teachers in promoting immersion and experience in a people-centered
design approach.

Ignacio Urbina is a professor of Industrial Design at Pratt University and
edits *Di-Conexiones*, an online discussion and information platform.
Ashby Solano is a professor of Industrial Design and directs CENTRO's
technological research projects.

A.S. When I was asked to do an interview I was told to think of someone from the field of industrial design working on social impact and education. Immediately I thought of you, because of your career and the type of content that you share on *Di-conexiones*. What inspired you to create this platform?

I.U. *Di-conexiones* is part of what I've been doing for the past ten years. It began when I was in Monterrey. We were invited to hold an ICSID Interdesign forum, where we held conversations with around sixty students, including Diego Etienne. That same year, Diego launched a design website. That gave me the idea of transforming it into a blog and so we began working on it together. Diego simply wanted to make design accessible, and for people to be able to read about it. I've been writing for some time about design, trying to popularize it. I had the idea when I returned from Brazil. At that point I wanted to combine creating projects, giving classes, and writing. The complaint was always that we lacked a magazine, that no one reads about what we do or knows who we are… and so I decided to do it myself. That's the idea behind *Di-conexiones*. I'm not really an editor—the job description has been steadily evolving. I think I edit something different every morning. I work independently, without any advertising, so it's not a business website. I have plenty of followers but I'm not interested in commercializing this work, mainly because I don't want anyone telling me what to say.

Although we could say that designs are all essentially social, it seems that people today are focusing particularly on design's social impact. What's your view on the current boom in social design?

I see the theme of social design as a discourse, even though some people call it a fad. But for me it's a discourse that at a certain point has gained more relevance than other ones due to this particular juncture. For example, design has always emphasized the need for sustainability. I was always told about the need to design with fewer, low-cost materials. However, this discourse has now grown and it has the power to reach many more people than before. As you say, design was always something social because it was for people. In fact, designers work to put technology in the hands of people so that they can use it, and that has always been a social issue.

Design has always emphasized the need for sustainability

I worry that the technological boom only gives us an illusion of being connected with others via WhatsApp and social networks. Although design with social impact involves being in contact with people, I sense a contradiction because students have become used to online research and thinking that a survey is the same as contacting users. How can we encourage personal connections in this context?

I don't think this is exclusive to social design, but something widespread when you talk about an issue related to people. When you think about social design, you tend to relate it to deprived communities where design doesn't normally reach. In our consumer society we believe that design is closer to us and therefore doesn't need to be researched. Our students are not only used to carrying out online research without interacting with people, but they're also accustomed to digital responses; often the result is therefore a render where opinions are expressed although there's no genuine connection with materials and so on. During our three trips to Cuba—as part of a Pratt project carried out jointly with Havana's Higher Institute of Design (Instituto Superior de Diseño)—emphasis was always placed on the need to be there physically and to become immersed in the place itself. It did not require vast amounts of research, as that would have required a six-month stay, but simply understanding, experiencing the sound of people's voices, sharing meals, seeing the texture of reality there. By using digital media, we've been able to help some people remotely, but even a short period of immersion is irreplaceable and opens up new opportunities.

Even a short period of immersion is irreplaceable and opens up new opportunities

I agree. What do you think makes immersion the differentiating factor?

Design solutions or outputs, as well as designed products or objects, tend to be very general if they've been created with research but without immersion. For example, if designers are trying to address water shortage problems in African communities but lack a relationship with the local people, they'll only tackle the water problem in an abstract way and the context loses relevance. This means the social aspect is simply being used to give a false context to the project because in fact they're addressing a general problem that could have arisen anywhere. Design schools and teachers must always work to keep in touch with reality. When relating to materials and models, we must try to maintain contact with what is real. And the same goes for planning any project: if must include interaction with someone else, with someone who isn't a family member or a work colleague.

You don't need a detailed anthropological profile, but the connection with the "other" provides often-unexpected feedback that enriches the project.

I've noticed my students tend to take a very impersonal approach because they're used to describing or defining users according to the product. This makes them overlook key issues such as the socio-economic level in user behavior, and they use broad age ranges that often make no sense. For example, sometimes they propose a product for people aged 18 to 50, when of course eighteen-year-olds don't necessarily want the same thing as fifty-year-olds. What do you think about this problem?

The connection with the "other" provides often-unexpected feedback that enriches the project

Design needs to ask different kinds of questions, without just providing a technical, provisional, or erratic response. It's about seeking a deeper response that improves our understanding of who people are. I have a new idea which is to change the word "user"—which is very pedantic—for "people." Seeing people as users, especially when you're not doing social design, sounds very artificial. Calling someone a user is an eighties-style marketing ploy adopted by designers. However, the "users" normally considered in projects are actually made-up people who can be measured but they never cry, shout, or complain. I prefer telling designers that we must design for people. Making this shift in the discourse has many other ramifications.

Most of our projects at CENTRO are rooted in the Mexican context. However, I'm surprised by what you've done with the Higher Institute of Design in Cuba, or what you say about Mérida (Venezuela). How do these projects come about? How do you choose the contexts in which you work?

These projects are based on two overlapping themes. The first relates to people whom we know and to the connections made; the second relates to topics of interest. Therefore my work on *Di-conexiones* and teaching always brings up new projects. For example, the Cuba project came about because of Barack Obama's reengagement with Cuba, and Pratt's president asked if any of us in the design department knew anyone we could work with there. This makes me think about another key question in this kind of process: What are some of the interesting problems that can generate ideas that connect with other ideas? For example, going to a community in the Bronx and solving

a problem is a necessary project, of course, and—although that would be part of a program like the one you have with the Colonia América with the Social Design Hub—this can lead to other problems that need addressing, and so on; this creates something like a network of ideas and problems. In that sense, this kind of program is not only part of a global discussion, but part of a local relationship that must be maintained, and both aspects feed back into each other. It's a connection where local and global themes are discussed simultaneously and in constant interaction.

In your opinion, does a difference exist between developing social impact designs in Latin America compared to work being done in the United States and Europe? Do you think that we all face the same problems but each person tackles them from a different perspective?

I reckon that problems are different since they're determined by local influences. We all share global problems because, in the end, we're all the same species and face similar challenges in issues related to inclusion, as well as in the ethical or political spheres. Even so, we also have local challenges that put us in a particular context. This is where designers need a socially mature design in order to detect opportunities. In other words, I can propose a solution to problems at a local level which can be adapted to a global scale at any moment. However, I notice that identity is often discussed in North American countries. Whenever students tell me that they're working on a project for developing countries, I try to make them see that the reality in those countries is not homogenous; some people who live in them travel by helicopter while others don't even have enough to eat. This requires the students to reflect on what's being discussed. This connects to the age-range issue that you mentioned just now; people often come up with abstract situations or topics that are irrelevant to the given context. Underdevelopment is specific, local, and with a well-defined set of problems. It's true that poverty is a common problem, but in Caracas it isn't the same as in Cairo or Bamako. This makes local immersion essential. For example, when I work with North American designers (many of them are my students at Pratt), I always explain that it's almost impossible to implement a project in a community in Mérida (in Venezuela) if you're not physically there. Even though you can think about or imagine situations in poor, mountainous, Spanish-speaking communities, without living the local experience it's impossible to get a project off the ground. By contrast, a designer from Mérida who is close to the community can run a project there and the outcome can then go global. That's why I began to develop the

Designers need a socially mature design in order to detect opportunities

themes of identity; it was precisely at the Ibero-American Design Biennial, where I participate as member of the advisory board, where this idea took shape.

Identity in Mexico is a very powerful issue. Although this can be positive in some respects, it can also be limiting. The idea of "Mexican design" has strong roots and tends to relate social impact design to craftwork. Some designers think this approach involves going to a community of artisans who work using typical techniques and then applying this to their designs. This often seems like they're settling some kind of debt with historically marginalized communities. What's you view on this issue?

I have many Mexican friends. I know designers who do this and produce chairs using a specific handcraft technique based on a great design, and then this also becomes a part of their portfolio. I think this is a valid approach. I also know people who carry out scientific anthropological research at the UNAM, where the results are less tangible because they don't end up as a design but as research. One of the fascinating things in Mexico is that, unlike Venezuela or smaller Latin American countries, it's a very large country with many people and many universities doing interesting projects. You can tell that there are many initiatives, such as projects with artisans, personal designs, signature designs. There's lots going on here, but I've also seen, in CENTRO and elsewhere, that Mexican designers are genuinely concerned with global issues.

From your perspective as a teacher and designer, what should be our approach to social impact design?

I see problems in two areas and where institutions and designers should play a role. One relates to daily or local projects seeking to make an impact on our students when working with communities. The other relates to more general or global issues. It's essential to define where we are going to focus our efforts in the years ahead. Institutions such as the Royal College of Art, as well as some Dutch and German

schools, have a very clear understanding of this. The Royal College of Art tries to put its students to work on urgent issues; for example, when there are refugee problems, they produce sixty projects that tackle that issue. However, they suffer from the same drawbacks we discussed before. They don't go to the refugee camps or acknowledge the people, and the result is a render by someone who never went to the conflict zone. This means that the projects end up being generalized and global, lacking contact with reality. Of course, a group of well-informed teachers give these projects a strong theoretical framework, and therefore the projects are good, but I prefer contact with people. There are some things which, without proper immersion, remain invisible and become lost.

It's essential to define where we are going to focus our efforts in the years ahead

I don't know if teacher-training programs exist in the discipline of social impact, but do you see a need to run courses for teachers, or should they use their individual intuition instead?

Both methods are effective. The education industry is making progress and you are probably sharing some problems with us. It's hard for a designer to develop and implement a social program without training. There are some things that you need to learn, even basic skills like how to talk to people. Ezio Manzini, the director of the PhD program in the Polytechnic of Milan, is probably one of the most highly trained people in the area of design for social innovation. Their MA program on design for social innovation seeks to train designers through research, projects, and classes. I do think that this is a special area but also one that's natural for designers. However, we must remember that social design isn't a new issue; architects have long been going to communities to tackle housing problems. One example is the creation of the "23 de enero" housing project. The social issues of housing and the city predate the Bauhaus and the field of design in general. Before there were systems for taking gas and water into neighborhoods, there were problems with the construction systems of slopes. Design is immersed in the city. It's no longer a problem solely for architects and urban planners; designers now also have a voice. There's urban infrastructure, city residents, and this implies other things that have an impact on products.

Industrial design has always been multidisciplinary, as in Tom Kelley's "Ten Faces of Innovation." Projects consist of many different aspects: one moment you're an anthropologist and the next a designer. But often in the case of social impact projects, designers forget many of the project's different facets. For example, many students believe that social impact design isn't financially rewarding and is about being charitable. What do we need to do for students to participate more, and to understand that these projects are multidimensional and can be profitable?

Students who view social and commercial interests being mutually incompatible probably haven't done their research or analyzed their figures properly. I believe design should keep in mind that the core aim is to design and create three dimensionally with technological media in order to resolve a problem. The same principle applies when designing a Ferrari or a faucet. The differences lie in the people who will use the product, in which contexts, and how. People in poor neighborhoods—which in countries like ours constitute 50 percent of more of the population—are also consumers. They don't buy Ferraris, but they do buy faucets, bags, chairs, tables, beds… If they cannot pay, sometimes the money comes from indirect sources. In the case of design projects, it's possible to obtain resources for research, to benefit people, and to market the results. The process must obviously include social and ethical awareness, and not be motivated primarily by commercial interests. This approach is applied equally in the case of successful designs by large corporations, which are good because they're attuned to people's needs. It's the same awareness that I need to work with for people living in a *barrio*. There's not a substantive difference. Fuseproject has a very interesting initiative for glasses that is based on a social issue but also shows a highly sophisticated design. Again, I believe that this is connected to the discourse because often social design projects are sold within a framework of limited budgets. I think that designers can help combat this situation, especially since other professions are already doing so. It's not about completely solving the problem of poverty—although ultimately some things are resolved—but instead relates to how design aims to come up with solutions that prioritize functionality and beauty.

The process must include social and ethical awareness, and not be motivated primarily by commercial interests

Yes, there's also that belief that when we design a certain kind of project, it's not allowed to be beautiful. For example, people tend to relate certain colors to luxury. In that sense, if we don't want to indicate luxury, we have to use something else. However, I see us in this situation where we can take all the existing tools as we see fit to produce an excellent design.

We've always been sold this divergent or ambiguous idea that form is important and the foundation of our work. But we should be careful, because we don't only produce forms. As designers, we work with forms because that's how we place technology within people's reach. Whatever we do must be highly efficient. Although functionality has forever been associated with mechanical systems, it also applies if the object in question is related to communication and must convey a message. At the same time it must be beautiful—though I don't mean as a matter of taste. It's the same with music: if it sounds good and works, it's irrelevant whether you like it or not. Beauty isn't distinct from efficiency; on the contrary, it's equivalent. In more philosophical terms, it's exactly the same to make something beautiful as something efficient, because visual efficiency relates to functionality which, in this context, is the equivalent of beauty. The objective is beauty because it's functional. When we find ourselves drifting away from beauty, we simply need to return to the project's beginnings and resolve problems using the tools we have available, with form, with visual and tactile issues, and with the materials we have to hand.

We started out by talking about social impact as a current discourse. We're seeing an increase in programs—especially academic ones—focusing on this issue. Although we don't know if it will be sustainable in the long term, or whether it will be, as you say, a temporary discourse that will continue until we find an alternative. I think that, although it's a discourse, we're in a world where social problems do not seem to be waning but rather increasing. Where are we heading in the future?

This is an era of social issues, as you already mentioned. And it's a wave we need to catch and ride the best we can. I think we'll see a repeat of what happened with the discourse on sustainability, which triggered the Kyoto Protocol. People began to talk about it when there was already recycling and when sustainability in development terms was being discussed since the fifties. But the boom in "sustainability" took place in the nineties and in the first decade of the new millennium.

People no longer talk about "sustainable chair designs," for example, because sustainability is now a given. It's no longer questioned. With social issues, we've arrived at that moment, since we can identify tensions that need defusing. These are vitally important issues and therefore will set the standard for what we do. In the future, a project running in a deprived community will simply be a community project tackling this or that problem, since we won't have to emphasize its social dimension.

Can you see social impact becoming something that we'll gradually normalize and integrate into our daily lives?

A former culture minister of Brazil in the eighties wrote a book called *El discurso competente* that gave a definition that I like a lot. The author refers to a discourse that I immediately agree with when I hear it: when someone says that they have to do a sustainability project, given the problem of environmental waste, everyone agrees. Now it's the turn of communities. This discourse becomes a *discurso competente.* At some point it will cease being a *discurso competente* and become something normal and a part of daily life. I like the fact that there are *discursos competentes*, I like these waves because you learn that people have already identified the same problems as you have. Something similar is happening with design thinking, which used to be simply a study methodology and now there's even an MA course in it. I consider that it's something that designers were already doing, but the most interesting thing about design thinking is that other people are talking about design in a different way. Once again, we're returning to discourses and objects: I'm interested precisely in the tensions between the two. ■

Radical Change: Fall in Love with the Problem that Needs Solving, Not the Product

**A conversation between
Óscar Velázquez & Karla Paniagua**

A dialogue about three core aspects of changing design culture—social impact, the circular economy, and education—and a call for designers to identify problems instead of obsessing about a product. An overview of social entrepreneurship projects in Mexico and around the world that are meeting social and environmental challenges.

Óscar Velázquez is the director of Smart Impact and cofounder of FabLab Impact in Mexico City. Karla Paniagua is the head of CENTRO's Future Studies department and coedits the university's *Economía Creativa* journal.

K.P. **I suggest we discuss three wide-ranging topics: social impact, the circular economy, and education in the broadest sense of the word. Firstly, though, tell me about your professional background and career.**

O.V. I studied Development Economics at Utrecht University in the Netherlands, and I'm mainly interested in how to create socially beneficial economic models. At some point I developed environmental awareness and focused on sustainability, having discovered technology and the potential for making products. Then I was inspired by entrepreneurship and I realized that business could also make a positive impact. This led me to innovation and the understanding that this was how to effect change, create products and services, and produce things that make a greater impact. Most recently I've found out the importance of design.

My work is very focused on researching and producing development models that can make a social, economic, and environmental impact, and that can trigger innovation. After completing my master's degree I was hired by a business incubator in the Netherlands, where I was fortunate to be surrounded by numerous advisors, mentors, and, eventually, investors, who helped me to develop my ideas. I grasped the importance of entrepreneurship and how to do business that makes an impact.

Afterwards I set up a local development consultancy to provide services for local governments and cooperatives. Following that, I worked as Country Manager for Founder Institute—the world's largest incubator—a position I held for a year and which gave me plenty of perspective on processes and tools used in incubation and entrepreneurship.

I returned to Mexico in 2012 after spending eleven years abroad. I joined a project-development consultancy that turned into an incubator and is now an accelerator called Smart Impact with a portfolio of 120 high-impact companies it has invested in. It specializes in the circular economy and hardware. Our need for prototyping led to FabLab Impact, an innovation laboratory I founded in Mexico City's Historic Center, located in a building adapted with tools and technology—a little like a coworking site with a factory for innovators keen to transform their environments. We've trained 11,500 people there since the end of 2015. We work with companies on every scale, helping them to design, improve, and produce their products, which range from software and hardware to business strategy and design.

We also created Fab City, a project that has brought together a group of 28 people designing urban innovations.

Tell us a little about the circular economy. What's your take on it?

For me, the circular economy is a type of production that implies a radical change from the traditional (vertical) form of production and consumption. This means we cannot merely worry about production issues while ignoring where objects or materials are going to end up. If we're talking about production, we must change how we design our products and reduce our ecological footprint to zero. And in terms of consumption, the idea is to change how we consume; how we buy, use, and discard things. I think that, eventually, this can help to reduce global warming, cut emissions, and give environments a chance to thrive. Human beings are capable of consuming vast amounts, depleting resources, and causing our current systems to break down.

> We cannot merely worry about production issues while ignoring where objects or materials are going to end up

The circular economy can then transcend the discourse, regardless of whether we're talking about households or communities, regions or countries. However, this is neither simple nor glamorous. I understand that it's much more than just about recycling. What kind of obstacles do you encounter when you're trying to raise awareness among potential beneficiaries so that they can apply the principles of the circular economy? How do you manage to get them on the same page?

One thing I've learned is that you must be focused from the outset. When you're proposing or sizing up a solution, you must realize that you're working to meet a need. It's a very binary situation, in the sense that you can either do what you want, or what's needed. A significant part of the culture of production, creation, and design has been centered on what people have wanted to do, instead of what is required. In that sense, our solutions must be targeted at increasing society's resilience or transcendence, and ensuring that the human race can continue to survive on this planet. Design must be the foundation for addressing existing problems and needs, ensuring that these are responsible in how they produce.

To sum this up in one sentence, we might ask ourselves: "How can we design products that people love?" I design for use. I want people to become familiar with, and love, what I'm designing. I think about how I can change patterns of behavior with products and services that people enjoy using. It doesn't have to be ugly or difficult to use just because it's a social or environmental project.

Could you give me some examples or counterexamples that illustrate this idea? These could be national or international projects or organizations where you've seen that the organization or project leaders have succeeded (or failed) in this sense.

Let's start with the example of Uber. There was a very definite social need, related to issues of insecurity and poor service quality. There was a need for a better service because the existing options were terrible. Corruption was also rife in the transport sector: minimum fares were being set too high, taximeters tampered with, and extortionate fares charged at night and by tourist taxi services. This meant that there were various unmet needs; a culture of mafias and corrupt practices, and so on. The service's design was not scalable.

Uber radically changed how the ecosystem works by scaling its level of services without even needing a change in public policy. It met a particular need, using omnipresent technology that didn't require a registration process while avoiding corruption and the need for licenses. The change was drastic and was achieved in just a few years.

Electric scooters such as Grin, Lime, and Bird also illustrate how sustainable mobility is developing. Sometimes you need to bend the political rules. If you wait for the mayor to approve a public policy to introduce bicycles, scooters, etc., it's not going to happen. This type of project comes along, attracts investments, and introduces an innovation. Thanks to this green transport technology that produces lower emissions during usage, though not necessarily in the production, people are encouraged to move around more sustainably. These are two high-impact projects with very strong growth strategies: Grin (a Mexican company) and Lime (from the U.S.) are electric scooter services offering highly efficient options for sustainable mobility, and are expanding rapidly.

Sometimes you need to bend the political rules

Can you tell us about any other instructive, inspiring examples?

The issue of the circular economy is more systemic and now a part of public policy and private manufacturing strategies. For example, some companies—such as Adidas—are now using better raw materials that have been recycled to produce their shoes by reusing fishermen's nets or PET. Instead of producing many of these materials, they're incorporating resources previously discarded as trash, at the same time as upscaling to create a new product. They're not producing new plastic but using recycled plastic. Another example is Nintendo

and its Labo initiative that uses cardboard kits with biodegradable paint instead of plastic cases; this is an important waste-reduction strategy because consoles end up being thrown away.

Interface, the world's largest carpet manufacturer, provides another example of a huge company with a long track record of sustainability. One day the CEO realized the production process was too polluting and decided that the company had to change its materials and reach a zero-emissions target by 2020. It meant a very significant shift when the company began to analyze where they could generate the supply of materials instead of producing them. They discovered a way of using recycled material and fishing nets recovered from the sea; the nylon from these nets was transformed and became the material used for the carpets.

An example of a Mexican startup is Someone Somewhere, an initiative involving various communities working on the principle of traceability for clothes production. There is also Transition Network, a movement of communities that are reimagining cities and the world in general, based on the experience of local living and the circular economy. And Fab City, which I mentioned before, is a group of twenty-eight cities around the world creating circular inventions, looking for ways to produce strategies or processes to make circular and resilient cities. Another example is Open Ecology, which produces open-source machines using recycled materials. Finally, E-waste Solutions is a Mexican store that collects and upscales electronic waste—we should be aware that Mexico is one of the largest per capita producers of e-waste in Latin America, so we need many more such startups.

How can students take the first step toward making a contribution to the creative economy, at any level?

I think that students—or anyone else for that matter—must begin by finding a need. You should never fall in love with a product, only with the problem that needs solving. Then I recommend understanding the meaning of open innovation, as well as exploring online archives, which are global and enable you to create solutions to specific problems.

There's no need for students to worry about the overall issue of recycling, for example. They'll never be able to resolve it. But they can find solutions from the user perspective—a specific problem that can affect a particular individual. Once you've tried it and made improvements, then you can scale up.

You should never fall in love with a product, only with the problem that needs solving

How do you work from an educational perspective?

Our model involves four processes: discovering, prototyping, incubating, and accelerating, which includes an investment fund. In the exploratory phase we run Makeathons, Hackathons, presentations, events, as well as partnerships to detect needs and devise solutions.

If we spot a good idea and a good team, we move onto the incubation phase: sometimes we invest money to produce prototypes, or else we bring in an investment fund or a sponsor. At a third stage, if we see a functioning team and product development, we put it into a high-impact incubator. Then we invest between US$25,000 and $50,000 with a very specific focus on something that is already being tested in order to reach the proof-of-concept and then roll-out phase. If everything goes according to plan, we put them in the accelerator and create connections in order to optimize the final product and to ensure it's competitive.

Where do projects usually fail? What can we learn from that?

Projects usually go wrong in one of three ways: firstly, in defining the problem; secondly, in the team, since you need talent in a team; and thirdly, in the actual concept of the project or the validation of the model. As you're developing ideas, or certain aspects of them, you must run tests to make sure that those aspects of your product are real.

You've clearly described the crux of problem-solving in general: the need to work on a problem that is actually a problem. To wrap up, what tips can you give students, researchers, and others involved in the creative industry ecosystem?

Whatever you're doing, it's crucial to research and carry out a short benchmarking or comparative exercise to see whether what you're doing already exists or not. It's essential to know your competition, as well as substitute or similar designs. Secondly, it's very important to keep track of results over time and the costs involved. In terms of results, it's vital to continue executing a project with a tight control on schedules and costs, working to ensure that you're making the most of your time and getting a reward for your efforts. ■

Design and Emergencies in the Latin American Context

**A conversation between
José Allard & Graciela Kasep**

A look at the evolving role of designers and universities, how they can work together to help improve public services, as well as the potential of strategic design and collaboration to respond to emergency situations.

José Allard was the director of the Design School and founded the Public Innovation Laboratory at the Pontificia Universidad Católica de Chile. Graciela Kasep is the head of CENTRO's Research Center (CIEC).

G.K. **An interesting and increasingly evident phenomenon today is how the designer's role has changed from creating forms to effecting social change. At what point did this shift occur within the university setting, and how has it involved you as a faculty member?**

J.A. Design schools, at least those in Chile but probably also in the rest of Latin America, once focused very intensely on forms. The teaching process therefore prioritized visual and perceptual aspects, without necessarily seeking to identify problems or suggest possible solutions or opportunities. This seems to have been changing over the years. I did my postgraduate studies in the United States, specializing in experimental typography. On returning to Chile, as a teacher, I realized that my area of specialization could produce a series of design interventions that weren't happening in my local reality. Latin American countries still confront a range of problems already resolved in developed nations. Working with my colleagues I identified possible design interventions and contributions to help improve people's lives by optimizing certain public benefits and services.

The designer's role has changed from creating forms to effecting social change

Until that point design work had been catering to large corporations and advertising agencies. Gradually I began specializing in information design and together with my colleagues we decided to offer public impact services to governmental, non-governmental, and civil society organizations.

When we realized the potential for making a major social impact, we made our first contact with public institutions from the Catholic University (UC). Everyone knows that public-sector institutions are very stretched in Latin American countries. Criticizing them is easy, but they are in fact working with very limited means. Public-sector workers often do heroic jobs. They give a lot to society despite the lack of resources, time, and the creativity that design, in this case, can contribute to their work. We asked certain public organizations to open their doors to us and to tell us the particular challenges facing them, so that students from UC's Design School could work on projects and solutions. It took us some time but gradually we managed to persuade, convince, and communicate the idea that we could make an effective contribution using design-based solutions (initially with graphic design but more recently with strategic ones) for public problems.

Our projects include the public competition we won in 2003 with the Ministry of Transport to develop an information system for users of public transport in Santiago de Chile. Between 2011 and 2012 we worked with the Ministry of Tourism on a unified information system for Chile's various tourism information offices. For the Immigration Agency we produced new ID card formats, etc. Some of these commissions were on a modest scale, while others were more ambitious—the public transport job turned out to be highly complex. Doors began to open for more projects in the public sector, where people became more aware of the real need to work with designers.

Before this interview I was looking at some of the various projects you mention, and I realized that, despite their differences, they also have something in common: the methodology, specifically in how reality has been taken as a starting point to conceptualize and develop each project, and how you have implemented cross-cutting methods that cover a broad spectrum of users.

As designers we were used to receiving public-sector commissions, but sometimes the briefs were misguided. It worried me that public resources should be spent on developing solutions to problems that in our view were poorly defined. The methodology shift happened when we introduced a more ethnographic and user-centered approach, before the ultimate product or service could be defined. The *a priori* observation of the user changed the system. Along the way we agreed to enter tenders in which we were effectively asked to submit conventional products and processes.

The major paradigm shift starts—even while still in the school setting—by making users the focus of the entire design process. This radical change came about by including, in the learning phase, social science experts, particularly sociologists and anthropologists. At our university we now have a course on ethnography. So the whole approach to teaching design changed within the span of just ten years. Students today are not only trained to come up with solutions as a form but to detect the problem and propose viable answers. This also implies that such solutions are properly executed and attractive too.

Students today are not only trained to come up with solutions as a form but to detect the problem and propose viable answers

We're convinced that this user-centered approach shows the importance of the designer's role in developing countries. In Latin American countries, for example, basic services are not always optimal, which changes design from being a discipline responsible for superficial problems and form, to one that provides actual solutions.

How can we maintain this social impact without sacrificing creativity, spontaneity, experimentation, and a little bit of craziness?

This takes the designer away from a position of authorship and toward solutions benefiting the most possible users. Perhaps the most serious drawback to this process is that abandoning a personal authorship of the process, for the sake of the user, also entails limiting or abandoning experiments in form, as well as making it more difficult to propose unconventional and speculative ideas. All of us working in social innovation, everyone in the DESIS network, who have become specialists or players in the social sciences, needs to take this on board. Sometimes we slightly overlook the importance of form. The challenge facing the designer is to strike a balance. I mention this as something critical that has arisen during discussions with academics. How can we maintain this social impact—that we know that we can make—without sacrificing creativity, spontaneity, experimentation, and a little bit of craziness.

Many potentially effective solutions exist. However, they don't necessarily stem from ethnographic observations but vice-versa—from speculating and coming up with solutions that possibly no one considered and could have a strong impact. These initiatives can have a greater effect than those created through consensual, collaborative projects.

Designers are beginning to settle into their new role, but which factors have influenced people's perceptions about designers and how is a designer's work valued?

We should mention two factors here.

Firstly, many of our successful social impact projects have been possible thanks to the fact we're working as part of a university. I think that universities are called upon not only to educate people and provide new knowledge, but also to transfer that knowledge to society at large.

For these tenders or competition-based projects we had the support from the university, and that gave us time to develop this kind of processes. Altruism aside, once assigned a project, we were keen to do it properly, once assigned a project, we were keen to do it properly—to the extent that we were willing to spend more time and make extra efforts to ensure the best possible result. For example, in the

case of the public transport project in Santiago, we developed a typography for the system which was not included in the competition brief. Basically, this was a piece of work that we ended up "donating" to the public. In the private sector, for those working in an office or agency, it would have been very difficult to do the same. There you need to work within certain limitations such as ensuring profitability and meeting deadlines. Universities can contribute to this paradigm shift in social impact design.

Our work with various government departments has made design's impact more visible. Now—for the first time in Chile— the State is hiring service designers. Universities provide good introductions in certain areas of the public sector due to their reputation and social standing. This creates new spaces for designers.

The second factor I would like to mention is the comprehensive approach to the profession. At the UC it has been like this for a long time; a problem is approached from an integral perspective rather than focusing exclusively on graphic, industrial, or product designs. For example, right now we're working on immigration, through the migrant caravans and the children who form a part of them, with the NGO called *América Solidaria*. Tackling this issue just through a visual communication strategy would only produce graphical proposals. What's interesting about taking a more global approach is that it reveals solutions in different areas. In a way, it doesn't predispose our work to deliver solutions from a subdiscipline of design, but it also makes it possible to form multidisciplinary teams seeking to offer better alternatives.

Universities can contribute to this paradigm shift in social impact design

After telling us about this entire process and participating in the paradigm shift of the university course, tell us how you ended up developing designs for emergency situations?

Working on the transport project forced us to confront emergency situations. Santiago's public transport system was a Ministry of Transport social project carried out ten years ago, but it failed. From the engineering design up, they wanted to overhaul a complete system they called Big Van. People weren't ready for such a large-scale change and the initiative ended up having a negative social impact. As a result, the information design team needed to improvise and develop a number of aspects not contemplated at the outset.

The moment of truth—for us as a team and for me as a designer—came when we faced the emergency after the earthquake in Chile on February 27, 2010. As a country, Chile is a veritable laboratory of natural disasters. But this was a very particular case because apart from the earthquake there was also a tsunami. The number of victims could have been reduced had the emergency protocols been implemented and followed, or had a better management and communication system been accepted by the State. Basically, there was a lack of information for users, the citizens, who decided to return to coastal zones just when a tsunami was bearing down on them. That was the problem.

When the academic term began, in the aftermath of the catastrophe, a group of teachers decided to alter the content of our workshop programs. To avoid indifference to what was happening around us, we decided in a very improvised way, to address the issue of the earthquake and emergencies as the core of the design workshop-laboratory. For this project we interacted with teams of experts from other disciplines such as engineering and healthcare. We learned that emergencies are complex problems without any single solution but rather many responses, and that formulating solutions required a collaborative and interdisciplinary approach. In the event, there were problems in managing aid, because some people, by wanting to get involved, ended up hindering rescue efforts. We experienced the complexity of problems of emergencies, so we tried to come up with very specific solutions based on real-time observations. After the experience of that catastrophe we decided, together with a group of teachers, to work on this issue in a more systematic and planned way.

> Emergencies are complex problems without any single solution but rather many responses, and formulating solutions required a collaborative and interdisciplinary approach

The Chilean government later set up a single department for disaster response called the *Centro Integrado para la Gestión de Catástrofes Naturales*, or *CIGIDEN*. We were invited to collaborate, so we joined a network of existing experts who, for the first time, considered the design component as a factor in providing assistance. Another important achievement is that we learned that design could articulate and facilitate different aspects of the emergency ecosystem. Research centers often work in very isolated and specialist silos, and this limits communication and interaction with citizens, and fails to reach experts in public policies. Our (fairly modest) role therefore consisted in making the service available to interdisciplinary and expert groups.

Tell us how you connected the results and conclusions of this experience in the Design Biennial organization?

In March 2012 we took advantage of the Biennial to invite every design school in Chile to work on emergency-related issues. This opened up the field to include countless different typologies. Although we worked on the issue of the earthquake and the tsunami, we went on to deal with everything from social, technological, and even digital emergencies—for example, how to deal with a hacking of the transport system.

Because we had more than sixty design schools working on the same issue, the results were very creative. That Biennial led to the publication of a catalogue including projects by students and faculty members working in design. For example, one of my colleagues, Rodrigo Ramírez, worked on an excellent project called *Guemil*—a system of open-source pictograms designed to represent hazardous and emergency situations. It provides access to a visual tool for various information stages and platforms (before > during > after an emergency).

The Biennial project ended up being a great first step toward coordinating our work with other schools and sharing our vision of social impact design with other academic institutions. It was really incredible—more than fifty thousand people came to the Biennial.

One of the principles of social impact design is replicability, in other words creating actions that are adaptable to different contexts. What do you see as the challenge here?

The difficulty is undoubtedly how to scale up an action so that it can be transformed into public policy. There are two levels: one is how we can learn from these bottom-up initiatives originating from organized citizens (including designers). The second stage is about how we can learn and support public institutions and agencies in top-down initiatives. I don't think the solution can be found in one or the other, but in both. Why not try to replicate or scale up initiatives that have been found to work using either approach?

The key word here is learning. Honest, humble learning

I think that the key word here is learning. Honest, humble learning. The average citizen on the street needs to learn how to be prepared for an emergency and not to depend one hundred percent on the infrastructure. The State, for its part, must be much more open to listening and observing how people react, and what is working. NGOs and institutions must share their knowledge and learning curve with the State. Coordination is essential, otherwise we drown in completely disconnected individual initiatives.

The ideal situation would seem to be for these small initiatives to coalesce into a network, through collaboration and with a genuine sense of making an impact—as opposed to efforts cannibalizing one another. For example, in the vastness of Mexico City, the impact of an isolated project remains invisible in other areas.

If you can make the project scalable and translatable into a public policy, that's how it can leave a stronger mark

There's less impact, but if you can make the project scalable and translatable into a public policy, that's how it can leave a stronger mark. After what I've experienced in Chile, I noticed that, for example, in Mexico many public spaces have signs telling people what to do in the event of an earthquake. This kind of instruction—although its design could be improved—intervenes and proposes a replicable solution to help improve the State's disaster response.

Where I live, I know about some initiatives that are worthwhile yet only have a very localized impact. The solution is to take the public sector and scale up initiatives. Our challenge here is to detect efforts that can be coordinated with the State, or with preexisting institutions (the Red Cross, Médecins Sans Frontières, the UN) to become larger-scale projects.

Mexico and Chile share similar experiences when it comes to natural disasters. At the first anniversary of the September 2017 earthquake, you participated in CENTRO's Design Under Pressure workshop.

You worked with local students on the issue of being overwhelmed by emergency situations. What did you find most memorable about that day? Was anything completely new to you?

The experience of Design Under Pressure taught me several things. Firstly, it confirmed that designers do have the tools at our disposal to work against the clock, in this case twenty-four hours. During this period of time, we could observe and detect problems, see possible responses, and develop usable and practical solutions, which is always so important.

Another essential aspect was the interdisciplinary approach. In our team there was a mixture of students: programmers, product designers, graphic designers, and so on. This diverse team's conversations and solutions were completely unlike anything a single expert could have developed. Another striking thing about the designers' proposals was their awareness of, and ability to read, social cues. Our team worked on the issue of mobility. The first idea was about using the city's public bicycle hire system in the event of gridlock. I thought this was an appealing and stimulating idea. But as part of this exercise, we realized that the neighborhood around CENTRO lacked a shared bicycle hire service and that possibly this idea wasn't workable or there wasn't a clear need for it there. The students quickly realized that there was a lack of bicycles in the area but that there were *diablitos*—a kind of luggage carts. By reading and interpreting the context and its specific aspects, they developed the project. Using the carts and other objects available locally, the team built a useful device to transport people with mobility difficulties in the earthquake disaster zones.

Designers do have the tools at our disposal to work against the clock

Something else I saw was how the new generations actually worked: in real time, the students were simultaneously planning, prototyping, programming, preparing the presentation, etc. It was eye-opening. We rarely have the chance to work for twenty-four hours with students, and this experience made me realize that we effectively have a different generation who can multitask effectively.

I was impressed how they immediately managed to divide up tasks, work on communications with the media and digital platforms, confirm certain information or a specific aspect of the project, as well as how to share their findings. As a teacher, witnessing how this generation tackles challenges under pressure was very interesting.

Emergencies are all around us; however, it seems as though the initiatives we've talked about are mainly designed for the urban context. What's your view on striking a balance between those projects oriented toward urban contexts and those intended for other environments?

I think that the urban context has taken priority, both in terms of efficiency and in social return, as you can make an impact on more citizens. That doesn't mean it's not important to work in rural areas too. Right now we're working with Chile's National Agricultural Development Institute (InDap), a body mainly focused on rural issues that implements very specific projects such as the development of low-tech solutions. Digital technologies are already very normal for us, but many communities lack access to them. So, what would be the use of an app to them?

As a teacher, witnessing how this generation tackles challenges under pressure was very interesting

I have the impression that the focus on urban contexts is mainly about efficiency and cost-benefits. Your impact on a densely inhabited city with millions of inhabitants is potentially enormous—especially given the constant migration to urban centers. That explains why so many initiatives have been focused on these areas.

With public projects, we've been able to develop different pilot programs in disparate contexts. Sometimes we get to work with rural communities or municipalities, developing the same solution but seeing how it works better in a rural than in an urban context, for example in the case of medical clinics. By identifying the gaps, or by finding what works in both contexts, we can make adjustments so that public policy doesn't end up being homogenous and standardized but instead can be adapted to a certain extent.

What have been the most difficult parts of your work?

In terms of challenges, I've had to deal with emergency responses, and that's why I think prevention is the area where design can make the most difference. Other challenges are more connected to working with society. For example, in our Public Innovation Laboratory we explore the role of design in public services. Our work is aimed at government departments and municipal authorities, which perhaps doesn't sound very exciting, but it does have its rewards; for example, the reaction and work of the public-sector workers. Many people are doing things well in these government departments, and perhaps they simply lack the time and resources to innovate or think outside the box. I'm convinced that private initiatives are very important, but we also need to help the State become more effective. Seeing the complexity of the problems facing the public sector makes it easier to empathize a little more with the government apparatus and those working within it. ■

> Prevention is the area where design can make the most difference

Learning by Doing: Social Innovation Case Studies

These eight case studies show different facets, formats, and scales of social innovation initiatives in Mexico. The content has been arranged according to each project's background, development process, solution, social impact, and key lessons learned. The projects are diverse yet share the same approach: they articulate responses through creative processes whose design, implementation, and evolution have required—and encouraged—participants to develop their skills.
In other words, they have learned new ways of acting when faced with different situations.

Isla Urbana

Revolutionizing the water supply paradigm in Mexico through rainwater harvesting.

Start date	**2009**
Location	**Mexico** (Durango, Guerrero, Hidalgo, Jalisco, Mexico City, Morelos, Oaxaca, State of Mexico, and other states)
Organization	**Isla Urbana**

Background

Twelve million Mexicans currently suffer water shortages. This is a growing problem across the nation and reflects the severe inequalities and lack of understanding about how the country's water system works. Mexico City is in a closed hydrographic basin that faces a unique and frustrating situation: paradoxically, more than a million people lack water, yet torrential rainfalls cause flooding and turn roads into rivers of dirty water no longer absorbable by the paved-over city.

The water sources that supply more than 22 million inhabitants in Mexico City and the broader metropolitan area are running out. The aquifer beneath the city, the sources that feed the Lerma-Cutzamala System, and local wells, are all being over-exploited. According to information from the World Bank and Mexico's water commission, CONAGUA, by continuing the current trend of extraction—and the mismanagement of water resources—new supply sources will need to be identified by 2030 in order to meet 27 percent of the Valley of Mexico's current demand.

Overpopulation

Subsidence

Unequal access to water

Overuse

Desiccation

Energy consumption and costs

Inefficiency (leaks)

Wasted rainfall

Moving forward

Isla Urbana was set up in 2009 in response to Mexico City's water crisis. Although initially devised as a neighborhood-level project, it soon became a scalable alternative. The project developed out of the undergraduate Industrial Design thesis of two Mexican students at the Rhode Island School of Design, in the United States, which explored ways of using rainfall—a resource barely explored in Mexico—as drinking water. The project was motivated by the water shortage crisis affecting families in districts such as Tlalpan and Xochimilco in the south of the city, and Iztapalapa to the east.

The system was based on principles of sustainability and equal access. It consisted of an eco-technology designed to be adaptable to the typology of Mexican houses, which are mostly self-built. The aim was to provide abundant, high-quality water for families needing it most.

The first kit was installed in 2009 in a house in the Ajusco Medio neighborhood. This quickly showed its potential to harvest water that fell on the roof, providing eight months of water for a family without requiring a mains supply.

After this first pilot program, the team members went to live in the Cultura Maya neighborhood where they installed more systems—produced using non-specialist equipment that was available in local hardware stores. This experience on site gave a better understanding of water issues, as well as the population whose quality of life radically improved thanks to rainwater harvesting.

Between 2010 and 2011, large projects scaled up the impact: starting out with dozens of households in the Tlalpan district, within a year 800 systems had been installed in other parts of Mexico City. Although some installation mistakes lowered the level of adoption, the project continued evolving through the improvement of components and community intervention methodologies. Between 2016 and 2018, collaboration agreements with the district authorities of Tlalpan and Xochimilco led to more than 3,000 systems being installed a year. The increased demand required the design of a scalable model and improved components, as well as new academic research to justify rainwater harvesting as an official public policy for Mexico City.

Ajusco Medio neighborhood
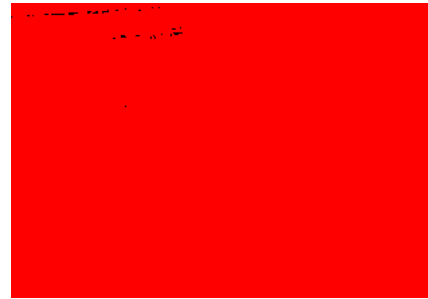
First working Tlaloque

Cultura Maya's First Office

In 2019, the Mexico City government's Environment Secretariat began working with Isla Urbana on the world's largest-ever rainwater harvesting program for single-family urban residences. The first stage consists of installing kits in each of the 10,000 residences identified as suffering from a severely precarious water supply. The aim is to exceed the target of 100,000 systems installed by the end of the current government's administration. This represents an initial and important step toward a paradigm shift in the water supply in a megacity facing shortages on such a large scale.

Over the years, the system has evolved thanks to the involvement of more experts in the project, and the knowledge acquired through experiences in the field.

Making a change

Carpa Azul

Each Isla Urbana rainwater harvesting system is designed using eco-technology to cover six to eight months of the needs of a Mexico City family, and can be combined with traditional supplies. In rural communities, the system can cover 100 percent of a family's water needs, preventing the need to transport it from sources that are generally in the open air and polluted.

Isla Urbana has designed rainwater harvesting systems for exhibitions or in collaboration with design and architecture organizations, as well as schools and museums such as: Taller Capital, Estudio MAPA, MUCA Roma, Huerto Roma Verde, TO, FES Zaragoza, Design Week, Museo Tamayo, MODO, the Triennale di Milano, Laboratorio para la Ciudad, the Mexico City government's Oficina de Resiliencia, World Design Capital, and the Tecnológico de Monterrey.

Escuelas de Lluvia

In addition to harvesting, two programs—La Carpa Azul and Escuelas de Lluvia—have been developed to promote a water culture among citizens:

La Carpa Azul is an educational program with a methodology based on accompaniment and the socialization of technology. It aims to increase citizens' environmental responsibility, developing a new culture of sustainable water use, through workshops, training sessions, artistic and cultural events, as well as by providing teaching and dissemination materials in the communities where it is working. Apart from helping to raise awareness, the program makes it possible to follow up with communities where the systems have been installed to ensure higher levels of adoption.

Escuelas de Lluvia is a program for installing rainwater harvesting systems in state-run primary and secondary schools with water shortage problems. This initiative uses water as a cross-cutting theme to organize environmental education workshops that seek to create a culture of water awareness. Participants from the schools include parents, teachers, directors, and pupils.

As part of its work to promote dialogue and create public policies, Isla Urbana worked in collaboration with OXFAM, SACMEX, and the Nature Conservancy on the first Rainwater Harvesting Forum in Mexico City (2018). And since 2015 it has held "Tlalocan," an annual rain party to celebrate and express gratitude for the start of the rainy season and to raise awareness of water as the most important element for life to exist.

Social impact

For the past 10 years, Isla Urbana's work has helped make a paradigm shift toward realizing rainwater's potential as a source of drinking water, and it has observed an increasing openness in government and potential users for its adoption. The organization has already installed 10,000 harvesting kits—mostly in Mexico City but also in other states—and notably 550 in indigenous communities and 135 in schools.

From the users' perspective, an autonomous water supply has improved hygiene and gastrointestinal health. Direct contact with the source of water has also increased people's awareness of its origin, and given water's many domestic uses, this eco-technology has helped free women from the responsibility of obtaining and administering this resource.

The growing demand for rainwater harvesting systems has required an exponential increase in the team's size. More than 100 people from different disciplines—including plumbers, architects, urban planners, social workers, engineers, designers, anthropologists, biologists, and educators—are now involved in the project.
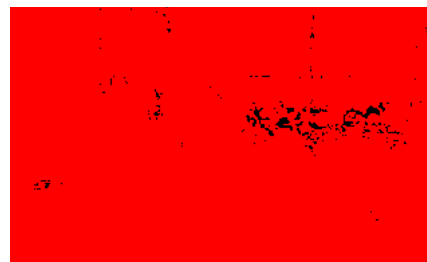
Water Crisis

Impact of Isla Urbana's 10,000 rainwater harvesting systems

12,000	Systems
72,000	Users
480 million	Liters of water harvested per year
48,000	Water truck journeys saved per year

Awards

– "Experiencias del Premio Innovatis," first prize, technological innovation for social inclusion CONACYT, 2018
– Premio Ciudad de México, environmental project category, 2017
– Social Design Circle Honoree, Curry Stone Foundation, 2017
– Visionaris UBS Award for Social Entrepreneurs, 2015
– MTech35 Massachusetts Institute of Technology Tech Review, one of the 35 innovators under 35, 2013
– Ashoka Fellowship, Changemakers, 2012-2015

Success factors

– Proximity and links to communities using the systems
– Multidisciplinary team and work strategy
– Construction of networks with specialized water harvesting organizations and key actors for the implementation of large-scale programs
– Horizontal working structure with wide participation
– Creation and communication of a culture of water consciousness, both internally and externally
– Accelerated growth an impact on public policies

Challenges

– Sustaining high-quality implementation and close contact
   with users
– Continuing to promote the proper use of rainwater harvesting
   systems in order to ensure that the collected water is of top quality
– Maintaining a close accompaniment and rigorous evaluation
   of systems already installed
– Keeping up the dynamism, energy, ethics and solidarity that
   enables Isla Urbana to continue growing and making a positive
   impact on society

Key lessons learned

– Constant feedback over ten years between the team
   and the recipient communities has been essential for the
   system's development and for the implementation and
   adoption methodology
– Empathy, commitment, and the work ethic go beyond
   immediate results Trust and mutual responsibility among
   the players is essential to create programs making a real impact
– Water management should be a shared responsibility
   and challenge for everyone

Strategic partners

– Citijal
– Mexico City government
– OXFAM
– Rotoplas
– Ministry of the Environment (SEDEMA)
– Communities of users

Further information

– Social project: islaurbana.org
– Products and services: islaurbana.mx
– Facebook: /IslaUrbana
– Twitter: @IslaUrbana
– Instagram: isla_urbana
– YouTube: IslaUrbana

Pixza

A business model for a chain of pizzerias making a social impact by supporting and empowering the homeless.

Start date	**2015**
Location	**Mexico City**
Organization	**Pixza**

Background

Homeless people constitute a heterogenous group, ranging from the very young to the elderly, as well as those suffering from various health or disability problems. They generally have broken family backgrounds, or do not have any family at all, and are exposed to poverty, violence, substance use and abuse. Invisibilized, socially excluded, and stigmatized, the homeless lack opportunities and initiatives designed to help them make a clean break from their situation or improve their living conditions.

According to official figures released in a recent report on Mexico City's homeless population, the capital has 6,754 homeless people, mainly in the Cuauhtémoc, Gustavo A. Madero, and Venustiano Carranza districts. This population largely consists of men (90.1%) and estimates suggest that only a third spend nights in publicly or privately-run shelters. It is noteworthy that most of these people are adults, and almost half are originally from other states in Mexico (43.5%).

Moving forward
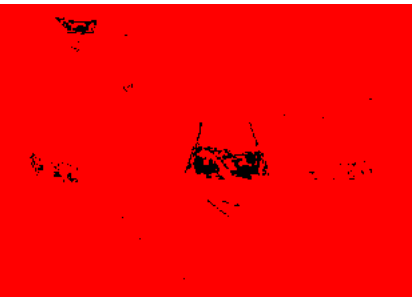
Alejandro Souza had the initial concept for Pixza in 2013, while sitting at a bar in New York, where he was studying his master's. He was missing Mexican food and wondering how he could recreate pizzas, a wildly popular dish in Mexico, giving them a local twist; his version would use the same blue-corn base as his homeland's *huaraches*, and be layered with traditional Mexican toppings. He aligned this idea with a project for a social innovation initiative to have a long-lasting and meaningful impact by giving a fair chance to Mexico City's neglected homeless population.

After six months of fieldwork, and a four-month conceptualization phase, Souza designed a sustainable model through a platform for social empowerment at the same time as establishing a business that made a social impact. Every pizza sold helps feed those who are destitute, but that is far from all. The model also seeks to empower the same people, and to reinsert them into society, making them visible, acknowledging the precariousness of their situation, and offering them new opportunities. Offers of employment are made to young homeless people meeting one or more of the following conditions: homeless for some time, broken family background, school dropout, criminal record, history of drug addiction, migrant or refugee status, and aged between 17 and 27.

Making a change

After almost four years of work, the project has evolved to become a complex model offering the first and only pizza made with blue corn and 100 percent Mexican ingredients. In 2019, Pixza has two branches in the Roma and Zona Rosa neighborhoods, and plans to expand to ten branches.

For every five pizzas sold, a sixth one is made and delivered every week to a homeless shelter. On receiving their pizza, the young homeless people also receive a bracelet as a symbol of a new direction in the wearer's life journey ("*La ruta del cambio*"), and this also represents an opportunity for them to find a job at Pixza. As the first part of this strategy, the young can receive up to five pizzas for free, and then, if they want to continue, they have to lead a voluntary project—an initiative to help the community closest to them. This is a filter to ensure commitment. The young people who participate form part of a rehumanization and redignification process with five benefits: a life skills course, shower, haircut, t-shirt, and medical check-up. All of those who graduate from the program receive a formal job offer at Pixza. This marks the beginning of a more thorough, multidimensional, eighteen-month empowerment program. The idea is that the young can start out on a professional career within the company. The ultimate goal is for them to become branch supervisors, and to reach a stage when they can live independent lives, setting themselves professional and personal goals, through coaching, and their training continues through practical courses.

In the middle of each pizzeria, a digital counter keeps track of the pizzas that are pending delivery, and the number already delivered.

Social impact

In less than four years, Pixza has delivered more than 9,000 pizzas to the shelters and helped 45 young people to graduate from the program and find jobs; of these graduates, five now lead independent lives. Other key figures: a total of 300 articles of donated clothing, 120 hours of personalized training, 86 hours of professional courses, 38 medical check-ups, 84 haircuts, 250 press articles, 110 conferences on social empowerment, and 74 people working as volunteers.

The five-year goal is to employ at least 30 young people a month, and to increase key performance indicators (KPIs) by 300 percent.

Impact in 42 months

2	Branches
8700+	Pizzas delivered
43	Young people employed
5	Independent lives
400	Hours of coaching

Impact indicators

01 Number of free hair-cuts generated
02 Number of free hair-cuts provided
03 Number of young participants in the "ruta del cambio" program
04 Number of young graduates from the "ruta del cambio" program
05 Number of young employees at Pixza and other like-minded organizations
06 Number of successful campaigns as part of the "Horno Social" (social oven) strategy
07 Number of young people now able to lead independent lives
08 Number of young people participating in the coaching program
09 Number of hours of training per young person
10 Number of young people studying professional courses
11 Number of young people graduated from professional courses

Success factors
– Strategic collaborations
– Branch locations
– Publicity and media impact
– Innovative cuisine
– Unique business model and Certified B Corporation
– Measurable and real social impact
– Service and product quality
– Creating an integral movement

Challenges

– Developing human capital
– Retaining human capital

Key lessons learned

It has proved more straightforward to get young people off the street than to make them lose the habits they picked up while homeless. The desired multidimensional empowerment requires patience and continuous monitoring to shape, rethink, and evolve interventions in order to ensure they are the most effective from the perspective of those benefitting.

Strategic partners

– The Institute of Social Assistance and Integration (IASIS)
– Ministry of Social Development (SEDESOL)
– Public and private shelters
– Foundations and NGOs

Further information

– pixza.mx
– Desquelitar (10-minute documentary)
  Scan th QR code to watch:
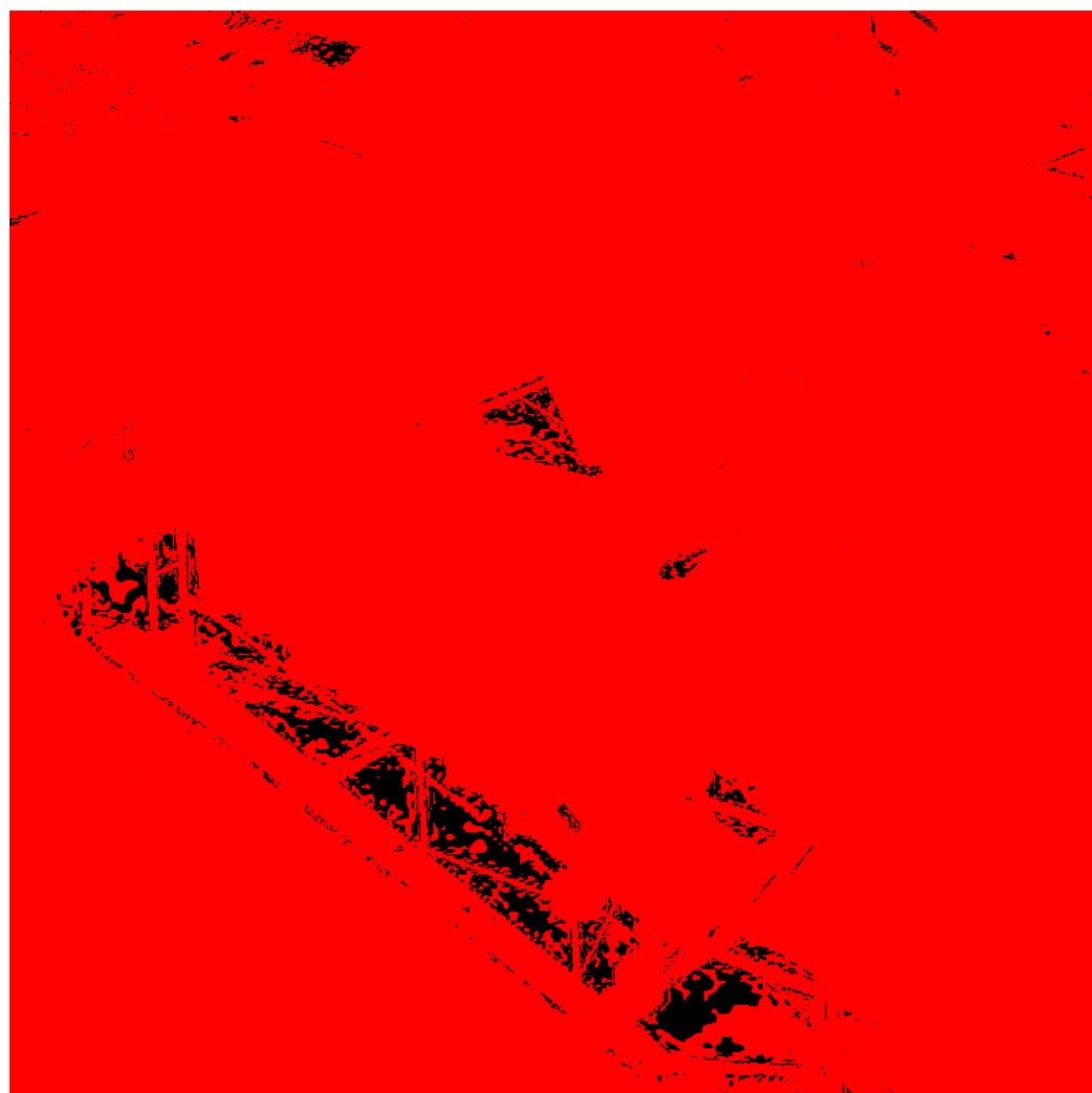
Ecoducto Río de la Piedad

A citizen-led project developed to raise awareness about water issues and to create a linear park on a stretch of the central reservation of the Viaducto Miguel Alemán, a main road built over a concrete-encased river.

Start date	**2012**
Location	**Mexico City**
Organization	**Cuatro al Cubo**

Background

The Mexica built their capital over a system of lakes, but over the centuries, the city's growth and large-scale water infrastructure projects have transformed the area from a natural to an urban environment. The demographic explosion and resulting pressures have decimated the vegetation and led to the over-exploitation of groundwater resources, the gradual sinking of the city, and regular flooding. Rivers are polluted, and the demand for water is increasing. Large-scale water supply and drainage projects—such as the Cutzamala System and the Eastern Discharge Tunnel (TEO)—were developed in the 20th century to help the city cope with this situation. Rivers mixed with sewage water were historically channeled through underground pipes, and roads have subsequently been built over them.

Mexico City is located in a closed hydrographic basin called the Cuenca de México; it has many wells and receives abundant precipitation. Paradoxically, however, many citizens living in the city's Metropolitan Area suffer water shortages and much of the available water is brought in from other regions. In other words, clean rain is drained into the discharge tunnels, while vast sums of money are spent bringing in water from elsewhere.

Moving forward

In 2012 a group of citizens started a movement which triggered conversations, regenerative development workshops, and social activations. The idea was to stimulate dialogue and improve the understanding of the Cuenca de México; the group also proposed regenerating the Río de la Piedad as both a biological and human corridor. A disruptive tactical urban intervention—"Picnic en el río"—brought people together on the Viaducto Miguel Alemán's central reservation that is built over the river buried beneath. At this event people joined together to have conversations, share experiences, and imagine the basin's living rivers.

This first intervention sparked the conversation and helped various citizen-led organizations to join forces with academics, social activists, artists, businesses and urban planners to work on initiatives to make an impact on the city. After five years of dialogue and social activations, the Cuatro al Cubo citizen platform was set up to increase people's understanding about the use of the Cuenca de México's water resources in a systemic approach and through various tactical urban strategies.

Cuatro al Cubo (4×4×4): A Systemic Vision

4 Pillars	Water, mobility, public space, and responsible consumption
4 Levels of participation	Individual, community, local, and regional
4 Actions	Behavior change, infrastructure, budgets, and legislation

Making a change

The Ecoducto Río de la Piedad linear park is an urban infrastructure project developed by Cuatro al Cubo. Created along a 1.6-kilometer (1-mile) stretch of the Viaducto Miguel Alemán, this space reclaimed by citizens is designed to raise awareness of the importance of regenerating the Río de la Piedad and the Cuenca de México's 45 rivers. A public tender for the Ecoducto project was announced in 2017 by the Mexico City government's urban management department (AGU), and a company called Irkon Holdings drew up the plans and oversaw the construction. The design incorporated input from experts, companies, and citizen organizations, which took part in working groups convened by Cuatro al Cubo. The groups' findings were distilled into four key areas that were integrated into the park:

– Green infrastructure: living water museum—presence of wetlands, monitoring, training, research, and scientific outreach
– Exhibition design: infographics and educational materials about water
– Architectural design and installation of a cultural space called the Water Pavilion
– Communicating information about the project #cuencaconmigo

These working groups included the participation of neighborhood organizations, a water resources network called Red de cuerpos de agua la Ciudad de México, Taller 13, Arquine, Ecotónica, Organi-k, and the UAM's Xochimilco campus.

The park was inaugurated in 2018 and runs between Calle Unión and Avenida Monterrey. It is designed as a public, recreational, and educational space for citizens. Its bioremediation system, the fruit of collaboration with hydrobiologists from UAM's Xochimilco campus, helps recover between 20 to 30 cubic meters (700 to 1050 cubic feet) of wastewater, every day, from the river buried underground.
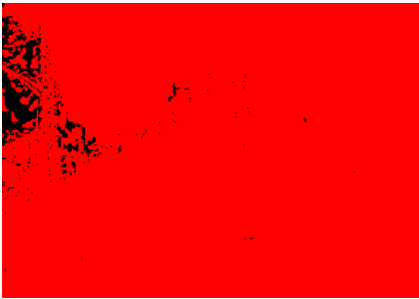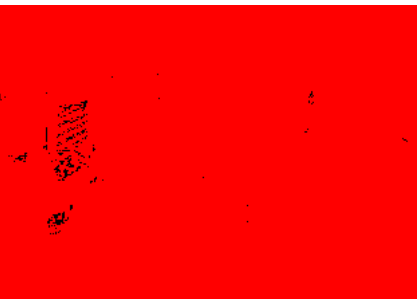
This water is treated by ten biodigesters and four artificial wetlands. The Mexico City government's department for infrastructure and services (SOBSE) is now responsible for its maintenance.

After a process of open collaboration and as part of the 2018 Mextrópoli festival, Cuatro al Cubo and Arquine announced a public competition for a Water Pavilion on the linear park. The project needed to be designed as an active public space to promote the reconnection with fundamental urban issues, as well as to stimulate participative and regenerative reflections on Mexico City as a closed hydrographic basin. More than 250 submissions were sent in, and the winning entry was by Apaloosa, an architecture and graphic design studio based in Tuxtla Gutiérrez, Chiapas. The Water Pavilion is located between Patricio Sanz and Avenida Coyoacán.

Social impact
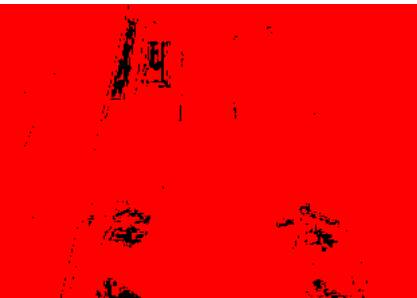
The Ecoducto Linear Park created meeting points that foster social cohesion and increase the perception of security for local residents. The section between the avenues of Coyoacán-Medellín attract most visitors as the preferred stretch for recreation, relaxation, sporting activities, and dog-walking.

From an environmental perspective, incorporating green infrastructure benefits systemic regeneration and represents a significant contribution toward mitigating the effects of climate change.

Impact in visitor numbers
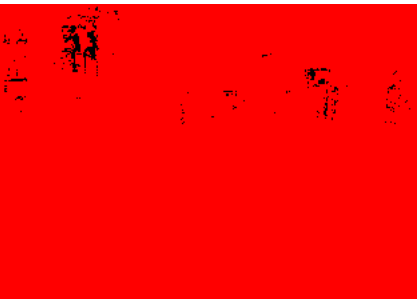
Weekly visits	**13,000** 9,255 Monday to Friday 3,788 Weekends
Average daily visits	**1,863**

Ecoducto Linear Park

Infrastructure:
- 1.6 kilometers (1 mile) long
- 186 streetlights
- 110 benches
- 48 power points
- 31 tree lights
- 21 garbage cans
- 15 roof canopies

Security and maintenance:
- 26 security officers
- 20 maintenance staff

Noise levels:
- 10 decibels less inside the corridor

Water and green spaces:
- 20 to 30 cubic meters (700 to 1050 cubic feet)
  of sewage treated daily for reuse
- 4,800 square meters (52,000 square feet) of green areas
  that help produce oxygen and to reduce an estimated 50 tons
  of carbon emissions into the atmosphere a year

Success factors

- Collaboration between civic organizations, social activists,
  artists, businesses, and urban planners.
- Alignment between the private, public, and civil society sectors.
- Continuity and management capability for a collaborative project
  designed around Mexico City as a closed hydrographic basin.
- Media impact and coverage.
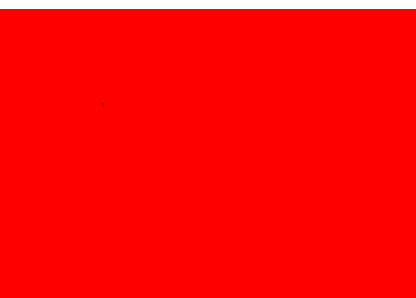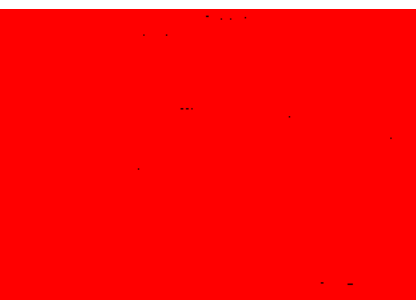
Challenges

– Local residents' appropriation of public space.
– Political will to maintain the recovered public space, operating permanently and for people's benefit.
– Continuity in the support of public policies that promote the city's green infrastructure for a city within a closed hydrographic basin.
– Assertive and strategic communication about the impact/benefit of the Ecoducto Linear Park.
– Follow-up of intersectoral management to develop scientific research projects in the park, connected to monitoring the quality of the water, air, noise levels, flora and fauna, and rainwater harvesting.
– Continuity for the development of educational and cultural activities, including guided tours, biodiversity and water culture workshops, as well as social programs.
– Incorporation of bicycle lanes as a safe way for cyclists to enjoy the area.
– Preparing a booklet—or citizen's guide—showing the Ecoducto as an example of how to replicate regenerative spaces in cities.

Key lessons learned

– Citizen participation and the development of a continuous collaborative process are essential to develop an integral urban regeneration project.
– Participation networks and alliances are key to strengthening the social fabric of neighborhoods and the development of cities.
– Understanding Mexico City as a closed hydrographic basin helps trigger local actions for its regeneration.

Strategic partners

– 100% Natural
– A de Acento
– Agencia de Gestión Urbana de la Ciudad de México
– Agua para Todos
– Alianza para la Defensa Ambiental
– Animanaturalis
– Apaloosa
– Arquine
– Barrio Unido Roma Condesa
– Cine Tonalá

- Cultiva Ciudad
- COMDA
- Dale la Cara al Atoyac
- De Esquina a Esquina
- Ecotónica
- Ectágono
- Efecto Colmena
- eeTestudio
- El Parnita
- Enchúlame el Río
- Estudio Abierto
- Factor Eficiencia
- Festival Ciudadanía 19S
- Festival Mextrópoli
- Greenpeace
- Huerto Roma Verde
- Isla Urbana
- Juz Tox
- IRRI
- ITDP
- La Ciudad Verde
- Lphant
- Los Supercívicos
- Mellow Consulting
- National and international media
- Organi-k
- Puentes
- Pulquería de Insurgentes
- Red de Cuerpos de Agua de la CDMX
- Ríos limpios
- Ruta Cívica
- Sea Shepherd México
- Sistema Bio
- Somos Agua
- Taller de diseño ecológico
- Taller 13
- Trasos
- Urbanística

Further information

- ecoducto.mx
- cuatroalcubo.com.mx
- Facebook: Ecoducto Río La Piedad CDMX
- Instagram: @ecoductomx
- Twitter: @ecoductomx
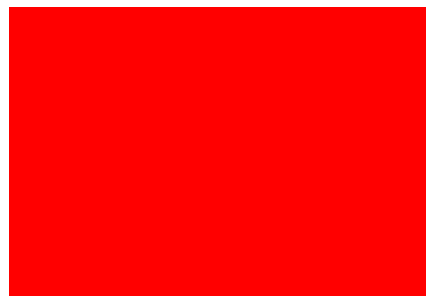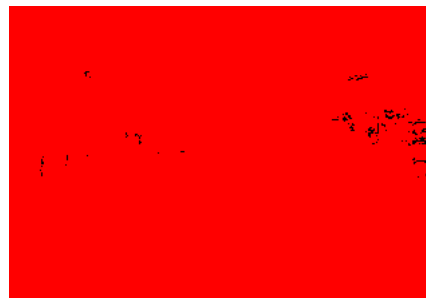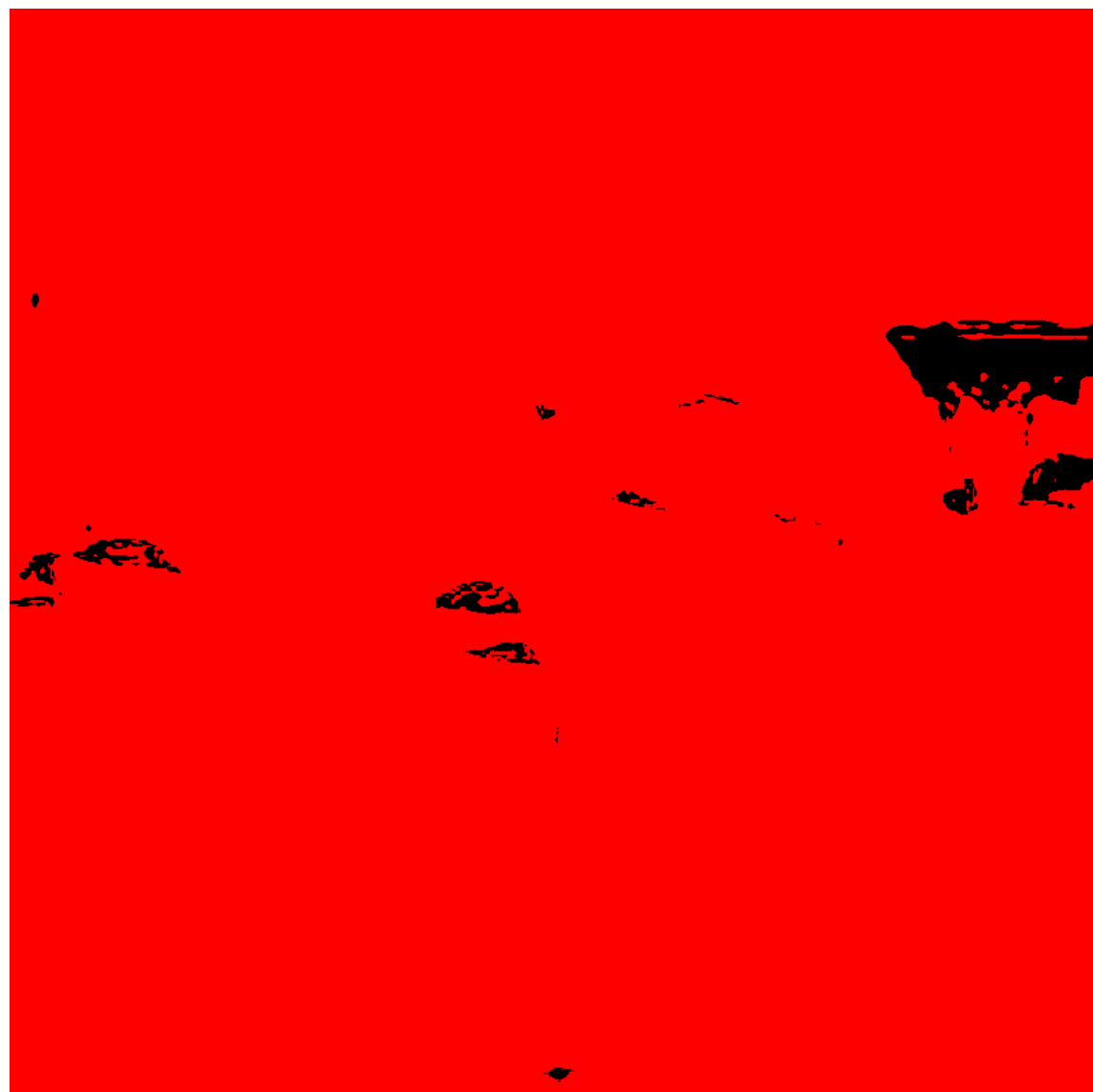
Verificado19S

After the earthquake that hit Mexico on September 19, 2017, a network of individuals and organizations worked together to manage rigorously fact-checked information in order to help the public optimize the emergency response and take part in the search for survivors.

Start date	**2018**
Location	**Mexico City, Puebla, and Morelos**
Organization	**Verificado19S**

Background

The earthquake of September 19, 2017 caused severe damage in parts of Mexico City and in the states of Morelos and Puebla, and false information spread quickly in the ensuing chaos. Collapsed telephone networks and congested communication platforms obstructed the flow of urgent information. Confusion about the number and location of damaged buildings alarmed the population who wanted to contact friends and family. Frustrated by the authorities' oversights, deficiencies, and negligence, thousands of volunteers self-organized to provide assistance. However, a lack of central organization caused too many people to gather around disaster zones, emergency supply centers, and Red Cross installations—sometimes even blocking access roads. Compounding the problem, widespread confusion was generated by wrong or out-of-date information circulating on social networks and via WhatsApp, interfering with the proper distribution of resources and provisions. Many well-intentioned efforts did not necessarily contribute to improving the situation.

Moving forward

In the immediate aftermath of the earthquake and in response to the emergency situation, a group of organizations and individuals including activists, journalists, and programmers contacted one another and met at Centro Horizontal's premises in Mexico City. They wanted to provide carefully verified information to the media and to different social network platforms, in order to channel materials and resources to the rescue workers searching for survivors in the rubble of collapsed buildings. The group agreed to draw up a map and a collaborative database that could fill in the gaps left by the information provided by official government sources, and to provide fact-checked, publicly available data. This became #Verificado19S, an emergency response and assistance movement that remained operational in the hours, weeks, and months following the earthquake.

Making a change

The first steps were taken hours after the earthquake: using Google Maps, the idea was to locate collapsed structures, shelters, and emergency supply centers, as well as to identify needs for basic provisions, medicines, tools, and specialists—information that was reported directly from the access points to the disaster zones. The map soon proved insufficient to connect the amount of information with the demand. As a result, a platform was created using Google Crisis Maps, combining information shared by citizens in Mexico City, Puebla, and Morelos together with the contents from various databases.

The project created a system of fact-checkers who confirmed and updated needs in disaster zones where there were still lives to be saved. These volunteers reported to the "nodes" where people were monitoring neighborhood WhatsApp chats, social networks, and making contact with internal and external networks able to provide the necessary resources. As the situation evolved, the fact-checkers became known in the disaster zones, helping the flow of direct information with the rescue teams and those in charge of administering supplies.

The data from other platforms, as well as information verified by the team, were added as different layers on the Crisis Map, including:

– Damage reported in the last 24 hours (collapses, leaks, etc.).
– Emergency supply centers active in the last 24 hours.
– Shelters reported in the last 24 hours.
– Fact-checked information received via external surveys
  and from other sources.
– Districts classified by the Interior Ministry as being
  in a state of emergency.
– Details about emergency supply centers, provided
  by Grupo Walmart.
– Lists of collapsed structures from the official federal
  government website.
– Free internet access points in Mexico City.
– Reported needs from Sismo México.
– Information from Manos a la obra, classified in two categories
  "I offer"/"I need."
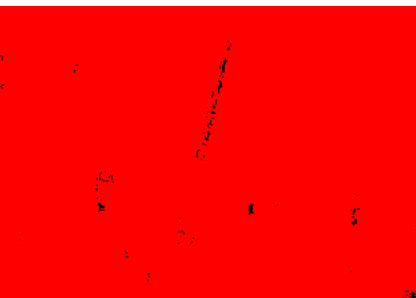
Social impact

More than 500 people volunteered to join the #Verificado19S network, either in the field or in the offices. The initiative became one of the most reliable, up-to-date, and frequently visited information platforms following the earthquake. Ten days after the disaster, #Verificado19S had processed more than 20,000 pieces of information, integrated eight maps, and distributed ten questionnaires which the public could use to report collapsed buildings and items needed at the emergency supply centers and shelters.

The information provided by #Verificado19S was also used for a network of cyclists, motorcyclists, car owners, and other drivers who volunteered to transport tools, provisions, medicines, and rescue workers to the disaster zones as required.

After the emergency phase, #Verificado19S continued working with partner organizations and volunteers. In 2019, they launched an online platform that collected the lessons learned from the experience. Although the movement gradually fell apart, it managed to compile information and offer recommendations for civil society and organized emergency response initiatives in various manuals published on its official website.
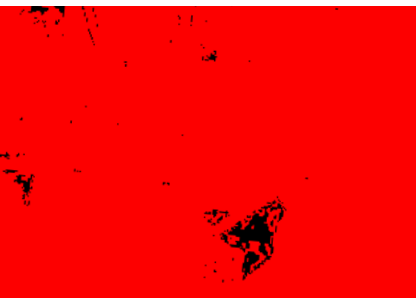
Success factors

– Organized volunteer network to fact-check information
  and channel contributions made by the public
– Independent and politically-neutral platform
– Support and synergy with civil society organizations
– Swift implementation thanks to networks of trust,
  based on preexisting relationships
– Availability of a suitable center of operations during
  the emergency
– Use of technological tools on accessible and
  easy-to-use platforms
– Real-time information
– Creation of an official account that helped build credibility
  and trust, and to disseminate information labeled
  #Verificado19S

Challenges

– Developing methodologies to counteract fake news
  in emergency situations
– Coordinating and articulating efforts with institutions
  and organizations to avoid duplicating information or
  obstructing other people's work; and in order to increase
  the added value of #Verificado19S in emergency and crisis
  response and rescue phases
– Adapting or knowing about the technological tools that can be
  used during a crisis and that are appropriate for the context
– Communicating and raising people's awareness about
  the existence of the platform so that they can use it in
  a disaster situation
– Establishing mechanisms for differentiated operations by area
  (eg in urban and rural zones)
– Preestablishing roles, responsibilities, and mechanisms
  for decision-making
– Preidentifying necessary job profiles and roles
– Having a system in place to activate and manage volunteers
– Creating strategies to monitor and measure impact in order
  to share achievements
– Sharing participants' agendas and visions in order to identify
  possible synergies and to avoid conflicts of interest in joint actions
– Designing strategies to help the transition after the emergency

Key lessons learned

–   Preventive planning could boost the initiative's effectiveness, cutting down organization and response times.
–   The need to avoid people taking on "irreplaceable" roles during an emergency response, possibly by setting up a system of substitutes and efficiently distributing responsibilities. Planning and predefining chains of command is essential.
–   Psycho-emotional support is fundamental, together with monitoring and self-care systems for those involved in the emergency responds to reduce the risk of frustration, work overload, burnout, or post-traumatic stress.

Strategic partners

–   Ahora
–   Artículo 19
–   Bicitekas
–   CartoCrítica
–   Cítrico
–   Centro PRODH
–   Centro Nacional de Comunicación Social
–   Codeando México
–   Cultura colectiva
–   Data cívica
–   Datank
–   Democracia deliberada
–   Devf
–   Fósforo
–   Google
–   Horizontal
–   La lonja MX
–   OPI Analytics
–   Oxfam México
–   R3D: Red en defensa de los derechos digitales
–   Revista Paradigmas
–   Ruta cívica
–   Serapaz AC
–   SocialTIC
–   The Data Pub
–   Tú, constituyente
–   Vice

Further information

–   verificado19s.org
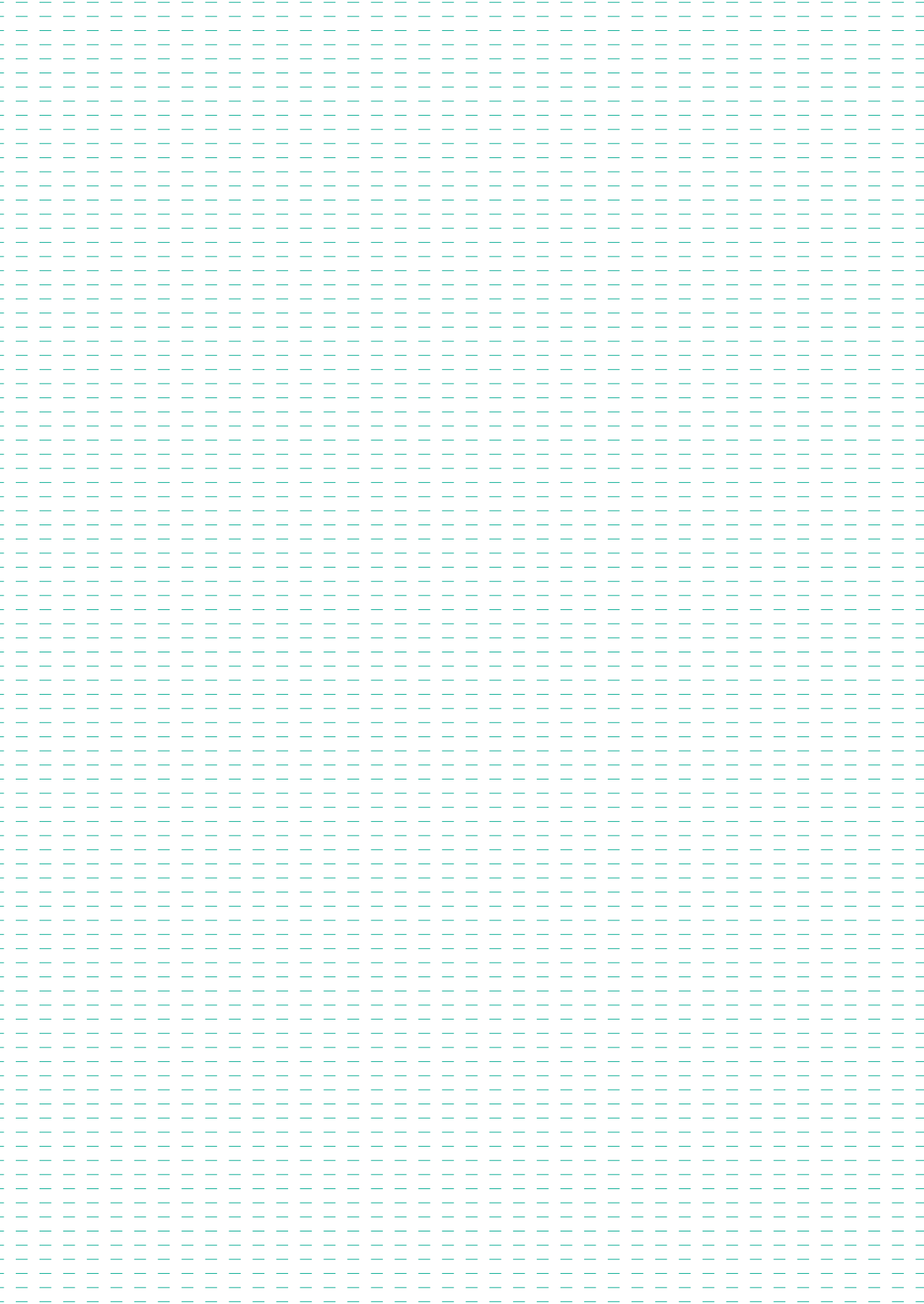
Al CENTRO de la Cancha

Co-designing a participatory initiative to create a community soccer tournament.

Start date	**2018**
Location	**Mexico City**
Organization	**CENTRO's Social Design Hub**

Background

In 2015, CENTRO University relocated its campus to Colonia América, a strategically located but complex part of Mexico City's Miguel Hidalgo district. Together with its surrounding neighborhoods (16 de Septiembre, Daniel Garza and part of Ampliación Daniel Garza), Colonia América is a socially heterogeneous area with a predominantly young adult and adult population and notable for its lack of recreational spaces, disintegration of community life, and generalized climate of fear and distrust between locals and visitors.

One of the main challenges for CENTRO's Social Design Hub has been to help create exchanges and networks in order to build a community and help counteract the prejudices affecting local residents and members of the CENTRO community.

Local Demographics
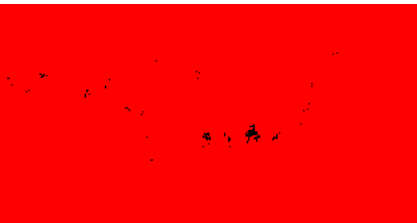
Age group	América	Daniel Garza	16 de Septiembre
0 – 14 years	21%	21%	18.1%
15 – 24 years	16.1%	16.3%	15.6%
25 – 44 years	32.2%	31%	35.4%
45 – 64 years	20.8%	22%	20%
65 and over	8.8%	9.7%	10.9%
Inhabitants:	6,326	5,827	1,383

Source: OVIE: SNIEG. INEGI. Population and Housing Census, 2010.

Moving forward

In August 2016, CENTRO university's Design Studies MA program and its Social Design Hub held the first intensive workshop on Social Innovation and Design, an initiative that later became part of the new master's course. This workshop combined theory and practice, involving the participation of CENTRO's students and local residents, and taught in collaboration with professor Scott Brown, coordinator of Academic Collaborations of Parsons DESIS Lab at the time. The process was focused on encouraging students to consider the local context and to think in speculative ways about how CENTRO could form relationships with its neighbors.
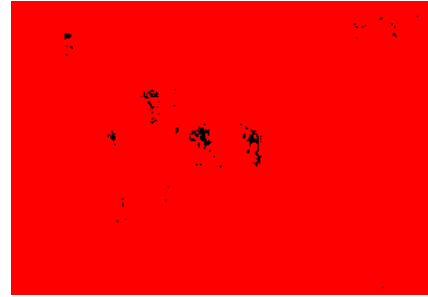
The workshop started a conversation that raised the most important issues for the participants in terms of the local context: the scarcity and poor quality of public spaces, weak community bonds, the fast-moving traffic and consequent risks for pedestrians, the lack of recreational activities, the perception of insecurity, among other problems. The resulting ideas were turned into proposals and prototypes that explored strategies for community building. The result was CENTRO-AMÉRICA: a graphic design proposal in the form of a poster for street soccer matches between CENTRO and local residents from the América neighborhood. The aim was to encourage social interaction around a shared interest. Although the workshop was useful as a tool to spark a horizontal conversation among participants, the conditions were not yet in place to get the project off the ground.

In February 2017, Mexico City's Palo Alto Housing Cooperative invited the Social Design Hub to play a friendly soccer match on their pitch. This event presented an opportunity to rethink the CENTRO-AMÉRICA project and refine the initial plan. After contacting the participants in the workshop, it was agreed to adopt the name CENTRO-AMÉRICA to create a team with the participation of local residents as well as CENTRO's students and staff, and to play together against the Cooperative's team. The event concluded with a social get-together and this raised the possibility of creating a local soccer team.

Making a change
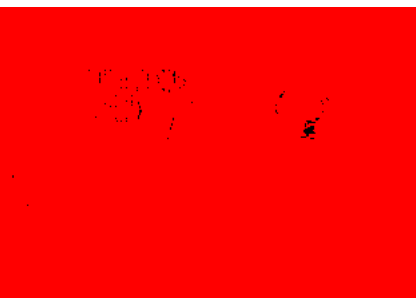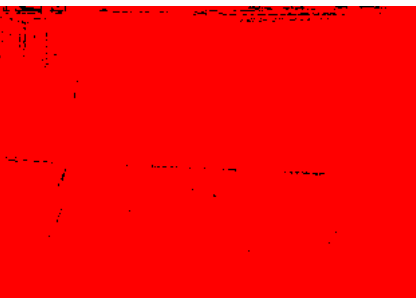
In 2018, after an unsuccessful tournament (when various institutions and a local team were invited to play but only the CENTRO and local teams showed up), the process was reassessed and the project went back to its collaborative roots. Invitations to participate were made to local residents who had participated in the Social Design and Innovation Workshop of 2016—and also those on the CENTRO-AMÉRICA team in 2017—as well as to new partners, including the Nuestra Señora de Guadalupe church (in the Colonia América). This helped create a community soccer tournament aligned with the community's interests and needs.

Finally, with the support of the group from the master's program, an open invitation was announced for a summer tournament called Al CENTRO de la Cancha, open to entries from mixed-gender teams of local players aged 12 and older. A total of six teams played in the tournament, from the Daniel Garza, Observatorio, and América neighborhoods, including one consisting of CENTRO staff. The event's success led to a second tournament, held in the autumn with the sponsorship of the sporting goods brand Voit. Eight local teams took part, including two from the CENTRO community whose players included both students and staff.

Social impact

The project's evolution over a two-year period has made an impact in different ways, by training creative professionals, building up trust and a sense of community, promoting sports, and bringing together more than 90 active participants aged between 11 and 55 in a positive environment.

Al CENTRO de la Cancha - Summer Edition 2018

Entry requirements	Teams of 11 players, live or work in the area, aged 10 and over, mixed or same-gender teams. No registration fee required.
Participating teams and age range	URSS 16 - 18 years CENTRO 24 - 45 years Oro 16 - 18 years FC Guadalupe 16 - 39 years Manchester City 16 - 19 years Atlético de Madrid 11 - 55 years
Total players	66 (55 neighbors, 11 CENTRO staff members)

Al CENTRO de la Cancha - Fall Edition 2018

Entry requirements	Teams of 11 players, live or work in the area, aged 10 and over, mixed or same-gender teams. No registration fee required.
Participating teams and age range	URSS 16 - 18 years CENTRO 24 - 45 years Oro 16 - 18 years FC Guadalupe 16 - 39 years Manchester City 16 - 19 years Atlético de Madrid 11 - 55 years Capibaras FC 19 - 24 years Franco-Canadiense 16 - 24 years
Total players	92 (66 neighbors, 11 CENTRO staff members, 15 CENTRO students)

The two tournaments brought together more than 90 players playing in mixed-gender, multi-generational teams. The wide range of participants included high-school students, former gang members, young churchgoers, two priests, as well as CENTRO students and staff.

The tournament inspired the creation of a similar project organized by local authorities at the Deportivo Constituyentes sports facility, showing that a positive impact was made in the organization of soccer games and a proper use of this public space by the local government administration.

Co-design and collaboration

Uncertainty

Social Innovation

Planning-based
linear approach

Open-based
experimental approach

Certainty

Single perspective
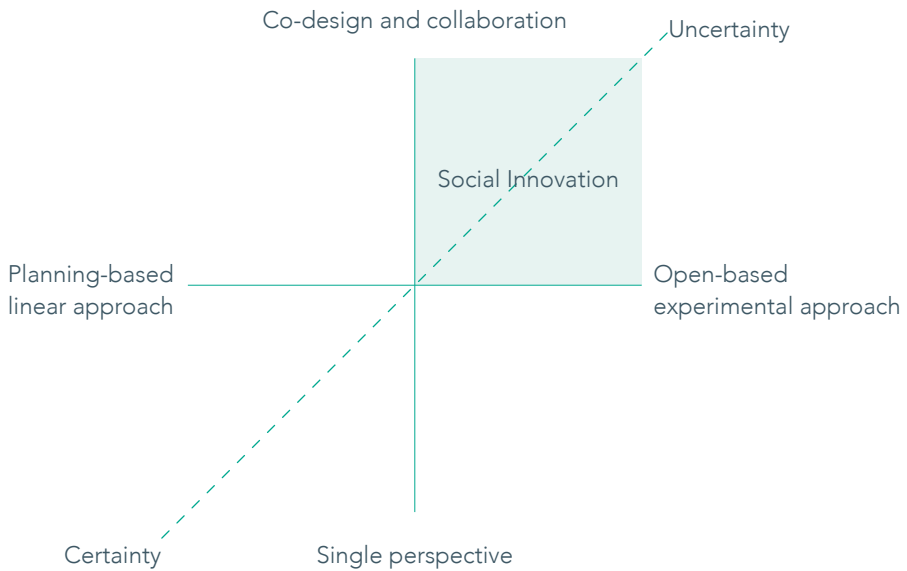
Success factors

– Students and local residents collaborating
   on the diagnostic assessment
– Co-designing the project
– Building up trust among participants
– Continuous dialogue with stakeholders
– Experimenting and adapting

Challenges

– Creating an open organizational structure that encourages participation and incorporates feedback from everyone to make improvements
– Maintaining a people-centered design vision to ensure a better understanding of local issues and the participation with local residents and tenants to organize collective responses
– Overcoming the prejudices of institutions and leading local actors about organizing activities with the community, and producing evidence about the positive impact of these experiences
– Managing the collaboration of local authorities for accessing and hiring sports facilities

Key lessons learned

– Social innovation requires open and collaborative processes Excessive control over situations can significantly compromise the project's nature and its results
– The process of creating a sports program—apart from organizing the matches themselves—is a means of starting conversations that help debunk stereotypes and prejudices, as well as find partners in the community

Strategic partners

– Local residents, CENTRO students, and staff
– Nuestra Señora de Guadalupe church
– Voit

Further information

– Facebook: @HubDeDiseñoSocial
– centro.edu.mx

La Chispa México

An incubator that enables entrepreneurs from disadvantaged backgrounds to develop social impact businesses.

Start date	**2018**
Location	**Mexico City**
Organization	**La Chispa México**

Background

Mexico City's Metropolitan Area has a population of over 22 million people, making it one of the largest urban agglomerations in the world. According to official data, in 2018 the unemployment rate in the city was 4.6 percent while nearly 50 percent of workers had informal jobs. In this megalopolis, millions of individuals live in deprived communities which tend to suffer from economic stagnation, high rates of violence and crime, and a lack of community trust and cohesion. This increases the overall sense of vulnerability and dissatisfaction making them often feel disempowered to improve their surroundings and quality of life.

The situation becomes even more critical with youth and incarcerated women, who face stigma and criminal records. Despite the challenges, these marginalized communities include individuals who have amazing ideas and drive to overcome obstacles, and who wish to improve their lives and the lives of people around them. Nevertheless, they frequently struggle to find work, business and financing opportunities, and to connect with professional networks.

Moving forward

La Chispa is a non-profit organization that emerged after two years of international research conducted to understand how communities develop. The most effective solution identified came from The Somo Project in Nairobi, Kenya. Its model for empowering local aspiring entrepreneurs to improve their communities by providing access to business training, financing and professional networks, has launched 37 businesses and affected the lives of more than 140,000 people.

The model was chosen and adapted by La Chispa to be rolled out in Mexico City. The aim was to promote the creation of social businesses by individuals in underprivileged contexts, who best understand local needs and can create models that benefit their communities.

La Chispa's model is based on five steps

1 **Source**: through partner organizations, La Chispa can access pools of aspiring entrepreneurs from underserved communities.

2 **Train**: participants complete a seven-week business training course where they go from ideation to actualization. The curriculum takes lessons from IDEO, MIT and SOMO, then simplifies them to fit the target populations. Training takes place in a classroom led by La Chispa's management consultants for two hours each week. The participants learn a new business concept and see examples of how it is put into practice in other cases. They then begin applying what they have learned to their own enterprise in the classroom. This enables the entrepreneurs to receive real-time personalized support. Lessons include perceiving a need or opportunity in your community, brainstorming solutions, designing the process, assessing financial viability, building and testing your prototype and pitching to investors. Participants receive weekly homework assignments to help implement their idea in the real world, with real customers. La Chispa's management consultants can be contacted by telephone as questions arise.

3 **Finance**: upon completion of the course, entrepreneurs pitch to the judges for the chance to receive a grant. This is to kick start their "minimal viable product."

4 **Partner**: La Chispa's management consultant team continues to partner with the entrepreneurs to help them grow their businesses and help them surmount the inevitable hurdles. They can also access collaborative sales channels.

5 **Grow**: loan capital is available when the entrepreneurs need additional financing to grow their businesses.

Making a change
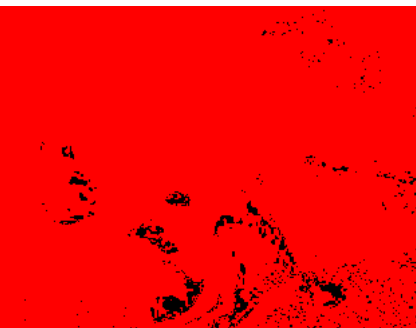
In 2018, La Chispa targeted two communities in Mexico City that face obstacles stemming from marginalization, crime, and urban poverty. The organization partnered with Reinserta ONG and CENTRO, which had knowledge and connections with the communities and helped to find entrepreneurs among them.

After identifying more than 50 entrepreneurs, La Chispa launched a training program for a group in each of the communities with the collaboration of Reinserta ONG and CENTRO.

La Chispa-Reinserta program was aimed at formerly and currently incarcerated women and youth from disadvantaged segments around the city, while La Chispa-CENTRO worked with Colonia América, a mixed-income marginalized neighborhood where CENTRO relocated its campus in 2015.

After the seven weeks of training with each of the groups, participants developed a variety of initiatives ranging from empathy training for kids to break the prison cycle; conscious consumerism-based clothing, food, and catering services; and a platform for shared stories to bridge disparate communities.

A highlight is Mamá Oso Pastelería, a bakery cooperative of single mothers. The idea came from an entrepreneur in the formerly incarcerated youth cohort, whose project has followed La Chispa's five-step model. *Step 1:* she received help from Reinserta La Chispa to overcome her difficulties as a single parent and to become part of a supportive community of other single mothers. *Steps 2 and 3:* after completing the training course, she was approved to receive a grant to prototype her business.

As part of this phase, a cross-industry team was brought in to help prototype and refine the concept for the market, including management consultant volunteers from CENTRO and ITAM universities; an expert baker and La Chispa entrepreneur from the Colonia América La Chispa-CENTRO cohort who contributed in the recipe development; and consumer testing to provide feedback at Insitum, Impact Hub, Seed Space, Strategy, Social Working Club, and CENTRO.

Step 4: the prototype was tested in the market, proved viable, and received a revenue-sharing investment from La Chispa to officially launch the business. And *Step 5*: the entrepreneur will continue to work with the above team, as well as with other collaborators such as Cocina Libre (a shared kitchen space for chefs); Happy & Shine (packaging); one of La Chispa's entrepreneurs from the CENTRO cohort; and Tili (uniforms).

La Chispa México

Social impact

La Chispa measures success by the number of entrepreneurs trained in business skills, the number of life-enhancing products sold, overall financial return on investment, and more intangible measures such as the building of trust in the community. From April 2018 to April 2019, La Chispa has worked with 49 entrepreneurs. Data on the number of life-enhancing products sold and overall ROI is still being collected.

Progress of the 49 enrolled entrepreneurs

Status (May 2019)	CENTRO	Reinserta (Currently Incarcerated)	Reinserta (Formerly Incarcerated)	Grand Total
Training Incomplete	3		7	10
Training in Process	7			7
Training Completed (no investment)	1	15	2	18
Grant Approved	2		2	4
Grant Received	3		5	8
Partnering to Grow	2		1	3
Grand Total	**18**	**15**	**16**	**49**

Success factors

– Collaboration between entrepreneurs.
– Partnerships with key stakeholders like CENTRO and Reinserta.
– Joint efforts with community service students and volunteers providing management consulting support.
– Partners' knowledge of the communities.
– Access to spaces for the delivery of business training.

Challenges

– Dropout rates due to personal challenges faced by those from underserved populations.
– Helping participants balance day-to-day life disruptions with starting a business.
– Maintaining a high standard of social impact and enabling entrepreneurs to achieve greater positive change in their communities.
– Accessing a broad funnel of entrepreneurs to enable more entrants to join the program.
– Developing a process that enables on-the-ground business training, and not only in a classroom setting, while also being time effective and scalable.
– Expanding and reaching aspiring entrepreneurs by recruiting them directly.

Key lessons learned

– The power of creating collaborative networks—it takes a community to get a business off the ground. Partnerships at every level have led to the successful outcomes achieved so far.

– The importance of taking business training out of the classroom. Understanding and engaging with your customer is at the core of any business. Being inside a classroom results in an entrepreneur-centric vs customer-centric model that inhibits business development.

– There is great richness in the business ideas that arise from living in particular circumstances, such as the perceived need for empathy training among youth and employment for single mothers.

– Cross-collaboration and knowledge-exchange among participants from different communities and workshops can be of great value. Members have found support in each other, creating a network of individuals who come from different backgrounds but are working towards the same goal.

Strategic partners

Key partners exist at each stage of the La Chispa's five-step process.

– CENTRO and Reinserta give access to pools of aspiring
  entrepreneurs from disadvantaged backgrounds.
  Training spaces are available.
– SOMO, IDEO, MIT, Insitum, and Acumen provide public
  sources of training materials.
– Private international donors offer grants for the entrepreneurs.
  Additional alliances with banks will be formed to arrange
  access to growth funding.

Further information

– lachispamexico.com
– instagram.com/lachispamexico
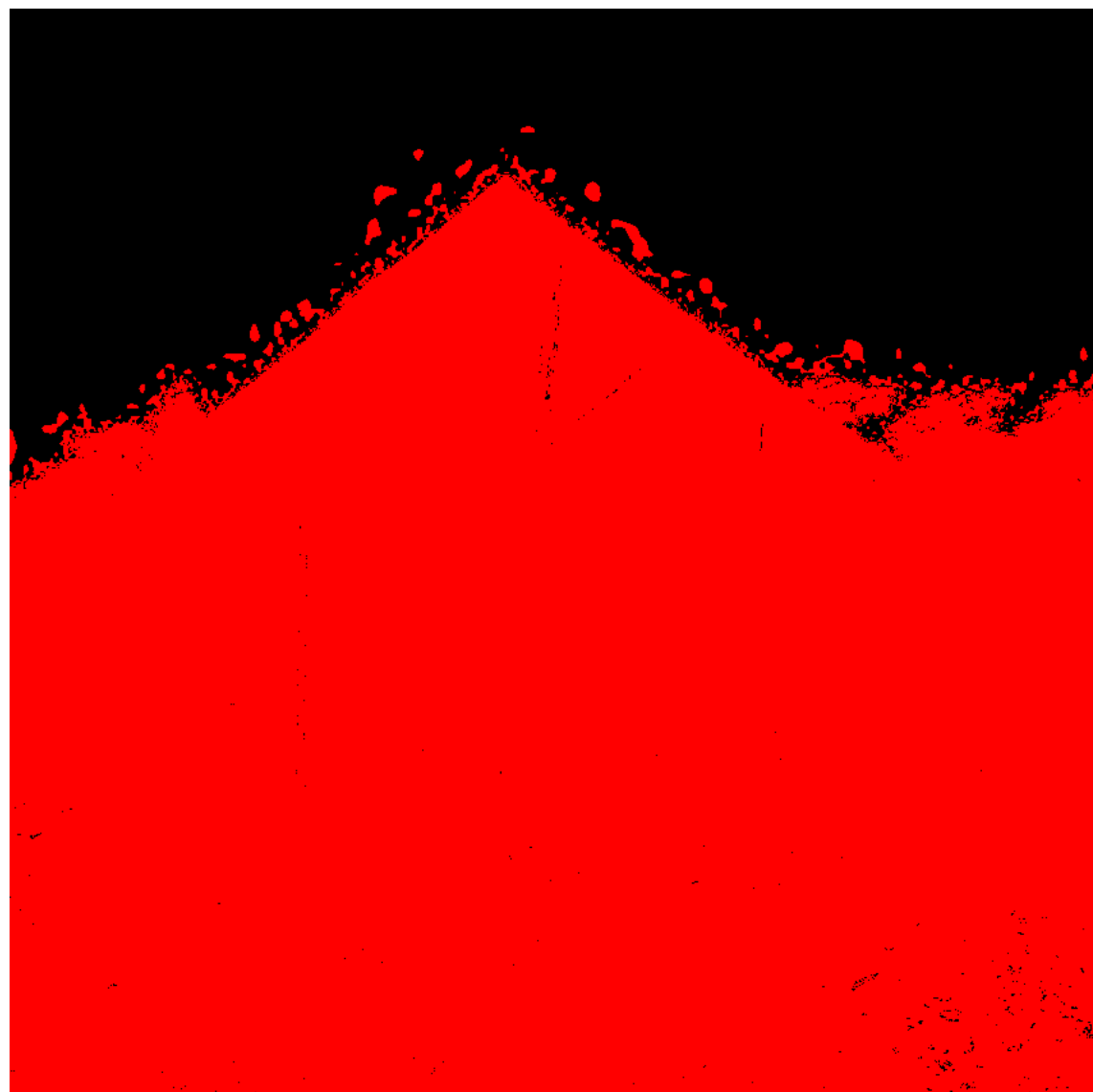
Escuela Rural Productiva

This rural school is a social production of habitat—a self-managed and participative project with spaces suited to the learning needs and cultural context of a community in a mountainous region of Puebla.

Start date	**2017**
Location	**Tepetzintan, Puebla**
Organization	**Bachillerato Rural Digital 186 + Comunal: Taller de Arquitectura**

Background
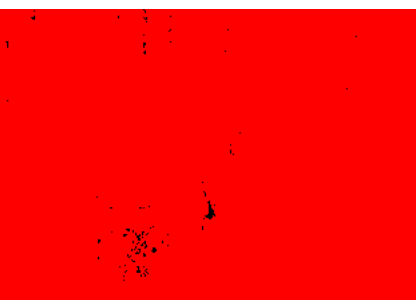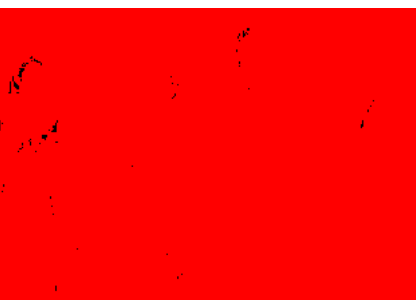
The Bachillerato Rural Digital is an official high-school level program that uses digital, internet-based learning platforms and existing educational infrastructure in rural areas. Though designed to develop pupils' digital skills, it has proved ill-suited to areas without internet-access or telephone coverage; instead of offering alternatives for indigenous communities, it often ends up provoking a different set of problems.

The schools adapted to the Bachillerato Rural Digital system do not have physical teaching materials and lack access to infrastructure and other tools. This operational drawback places pupils at a disadvantage and makes the program unworkable for its particular context. Furthermore, the sharing of school premises between secondary school pupils (aged 12 to 15) and those studying at the Bachillerato Rural Digital (aged 15 to 18) leads to social difficulties and discontent because of the contrasting learning needs and spaces. This causes antagonisms between the pupils (as well as their parents) and the community.

The pupils also criticize the Public Education Ministry's program as being incompatible with their culture, needs, and aspirations, leading to an increased drop-out rate from the *bachillerato*.

Moving forward

In 2015, five training workshops were held in Tepetzintan which showed the high-school pupils construction techniques using materials found abundantly in the region, mainly bamboo. These sessions enabled the young participants to collaborate and apply their knowledge in order to carry out the First Rural Housing Exercise in the area. This building project encouraged the involvement of local young men and women, alongside other community members, through a system of learning and knowledge-sharing between experts from Colombia and Mexico. The workshops gave those taking part the opportunity to acquire a range of skills.

During this process, the young people participating in the project reflected on the lack of purpose-built premises for their high-school and the unsuitability of sharing educational infrastructure with the secondary school; they also discussed the new techniques learned and the various ways of taking advantage of bamboo as a plentiful local resource.

The youth of Tepetzintan therefore decided to take education into their own hands, designing and self-building their own learning space.

Beginning in 2016, the participative design workshops produced a total of five spaces for dialogue and knowledge-sharing. During these sessions, the students used models and diagrams to express their aspirations, needs, and expectations. As part of their work, they developed the "Escuela Rural Productiva"—a concept for a school that was appropriate for the region, built using local materials. This initiative also took a fresh approach to learning and teaching based on the specific cultural, social, environmental, and economic context.

Making a change

The architectural program was born of the need, proposed by the students, to learn trades that could help them trigger local chains of production, revive ancestral knowledge in the community, avoid emigration, and strengthen family bonds. Their proposal consisted of three classrooms, a vegetable garden, and a medicinal garden. Other elements included a *milpa* (a small-scale agricultural plot), a kitchen-laboratory for the production of ointments, creams, and syrups, as well as a workshop where the pupils could continue learning about bamboo and other local materials used for building and creating other structures and furniture.

In 2017, the project was officially presented by the students and Comunal: Taller de Arquitectura to the parents, who held an assembly and voted for the project to go ahead. A local committee was formed to track progress and organize the participation of parents who would provide bamboo, stone, transport of material, and labor, as well as join *faenas*—local teams providing physical labor for the benefit of all. The community's general assembly donated the 1,530-square-meter (16,500-sq.ft) plot of land for the construction of the learning space, which helped put the project on a firm footing.

Construction work on the first stage began in July 2017 with the felling of 500 bamboos donated by the parents of the pupils, and the latter attended practical workshops in order to train the new generations and transfer knowledge about techniques. The work of digging and extracting stone was organized among the pupils' families to make the project viable through mutual assistance, collaboration, and collectivity.
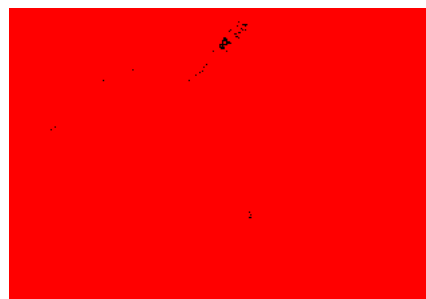
Social impact
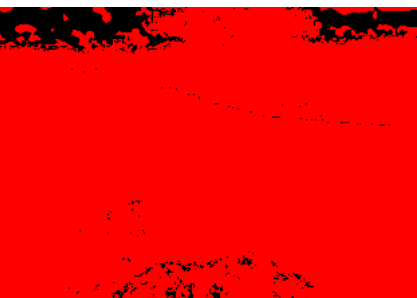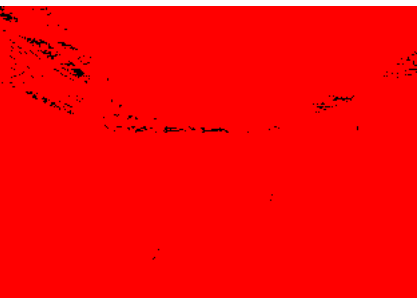
From an educational perspective, the project counters public policies that tend to homogenize education across the country, replicating architectural spaces and curriculums. Inspired by the particular context of each community, it also seeks to create a personalized learning space, suited to the pupils' educational needs, stemming rural flight and emigration.

In 2018, Tepetzintan's student community completed the project's first stage, a classroom and auxiliary spaces measuring a total of 192 square meters (2,000 sq. ft). The second stage of construction—another classroom and the kitchen-laboratory, with an area of 350 square meters (3,750 sq. ft.)—will be finished in late 2019.

The project has inspired two nearby communities (Pinahuista and Xocoyolo) to become involved in technical training workshops given by students, showing a knowledge-transfer domino effect, not only locally but also across a wider area. This has led to a series of projects in which communities help each other in a bartering system: they exchange training workshops for *faenas*, helping the construction process.

The Escuela Rural Productiva project has 56 enrolled pupils and the first generation—which began the construction process—graduated in June 2019. The most valuable social impact has been the stimulation of critical thinking among the young participants about the journey they embarked on back in 2015. After initially doubting their abilities to succeed, today they see themselves as change agents equipped with the tools they need to make an impact on their own future and that of the community. In this regard, through the committees women have played an essential and active role by detonating empowerment and encouraging them to continue their studies.

This first step was taken with a collective effort spearheaded by young members of the community, the construction committee, the educational committee, and Pablo López, the teacher who sought to prove that mutual assistance and working together is instrumental in achieving progress in the autonomous and community development of indigenous people.

Success factors

–   Self-management process
–   Community reflection
–   Participative design
–   Technical training workshops
–   Knowledge exchange at a regional level
–   Constant dialogue between participants
–   Implementation strategy designed by main agents
   and direct users

Challenges

–   Maintaining the active participation of parents throughout
    the process, since the steady decrease in their numbers during
    the construction phase has discouraged the pupils
–   Ensuring support from the Public Education Ministry to help
    in collaborative processes in order to improve school
    infrastructure in rural areas
–   Regulations and public policies ill-suited to the local context
    for the construction of learning spaces, and the refusal to use
    vernacular materials
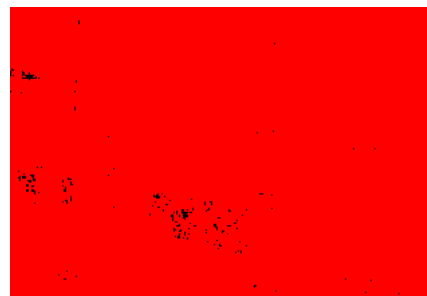
Key lessons learned

–   Self-management processes require a strong component
    of strategic alliances
–   The project must be effectively publicized to achieve synergies
    in different contexts and to combine efforts
–   A solid institutional structure must be in place to access funds;
    we set up a non-profit association for this purpose in 2017
–   Constant dialogue is essential for reaching agreements
–   A "social thermometer" is vital as a means of fine-tuning
    the strategy as required, in order to keep young people
    motivated to participate in a harmonious way
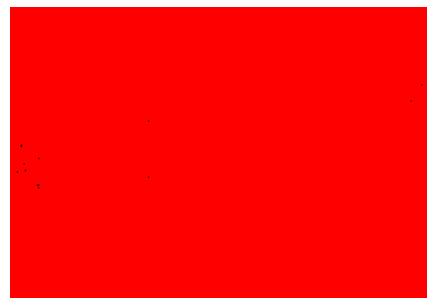
Strategic partners

- Change agents
- Micaela Francisco, president, construction committee
- Samuel Coyota, coordinator,
  construction work + community *faenas*
- Iván Martínez, local specialist, bamboo + training workshops
- Gaudencio Francisco, local specialist, ironwork
- Pablo López, director, Bachillerato Rural Digital 186 +
  coordinator of student *faenas*
- Isauro Manzano, specialist engineer, bamboo
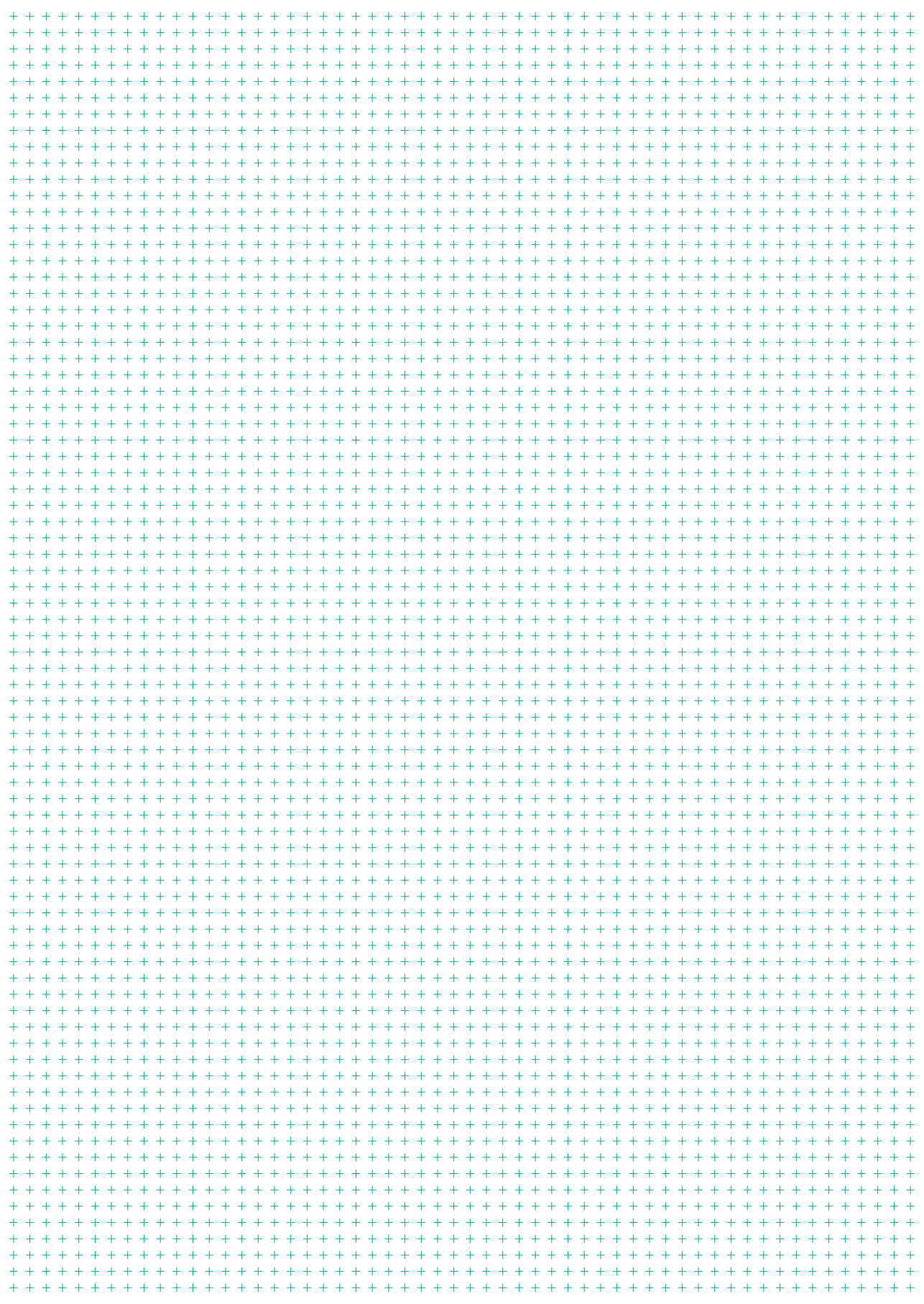
  Institutional:
- Canada Fund for Local Initiatives (CFLI)
- Ecolam
- Novaceramic
- Rotoplas
- Root Films

* The project has received contributions from the community, and
  money has also been raised by Comunal's fundraising campaigns.

Further information

- comunaltaller.com

Design
Under
Pressure

Within the framework of World Design Capital Mexico City 2018, CENTRO and Wanted Design launched an international invitation for the Design Under Pressure workshop, which examined the role of designers in crisis situations. This chapter resumes the experience of the workshop through its four guest workshop leaders, and compiles various perspectives on the creation of an Emergency Design Force for Cities.

Manifesto

Emergency design is:

01 **Human-centered design.**
Focused on understanding victims and their situations.

02 **Adds value through collaboration and co-design.**
Relies on the knowledge and ideas of others to generate joint solutions.

03 **Integrates and connects communities.**
Avoids the imposition of visions and solutions that are not based on the needs of the local context.

04 **Questions the establishment.**
Analyzes whether solutions are functional and proposes improvements through observation.

05 **Focuses on the local context.**
Detects the specific needs of the context and favors the use of existing resources.

06 **Encourages simple solutions.**
Prioritizes viable proposals that can be easily implemented, adapted, and replicated.

07 **Focuses on the small details.**
Multiple needs surrounding emergencies are important but tend to go unnoticed.

08 **Uses strategic thinking.**
Connects information and needs to detect opportunities to take action.

09 **Is resilient.**
Capable of managing stress and pressure, and adaptable in regard to the constant need to change, maintain or recover functionality.

10 **Is intuitive.**
Works for the majority of people regardless of age or social status.

How can design help during a catastrophe? What is the role of designers in times of crisis? Is design-thinking a useful tool for survival?

In order to explore possible answers to these questions, 31 students from various international and Mexican universities came together to participate in Design Under Pressure, a workshop held on September 26-30, 2018 to mark the one-year anniversary of the powerful earthquake that hit Mexico City and other parts of the country on September 19, 2017. Created as a joint collaboration between CENTRO University and WantedDesign NY, the program included visits to social innovation initiatives in Mexico City, as well as research and brainstorming regarding the impact of design in emergency situations. The culmination was a 24-hour, hands-on workshop that recreated the immediate aftermath of a disaster scenario—specifically a flood or an earthquake—which focused primarily on the issues of health, mobility, communication, and shelter.

The featured projects are the result of intense student teamwork aimed at delivering solutions under the guidance of professors José Allard (Chile), Nik Hafermaas (Germany), Cecilia León de la Barra (Mexico), and James Meraz (USA). The reflection also opened the conversation about setting up an emergency design force in cities to face possible disasters, and led to the creation of a collaborative manifesto.

Design Under Pressure was showcased at the Abierto Mexicano de Diseño 2018 and Wanted Design NY 2019. Workshops and conversations on the topic are being coordinated by the Social Design Hub, expanding reflections on the role of designers in identifying and solving latent challenges that are happening silently but are urgent issues for the city.
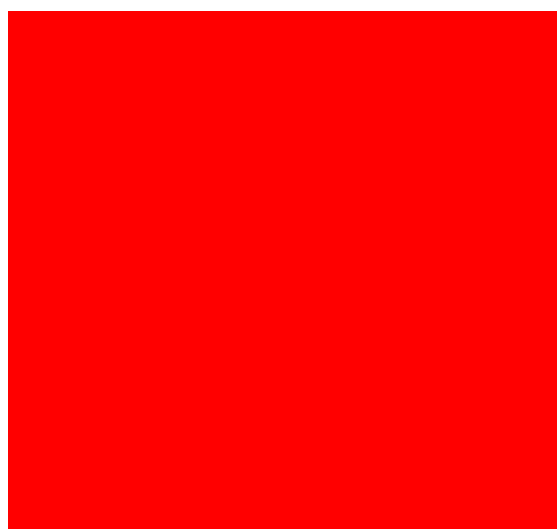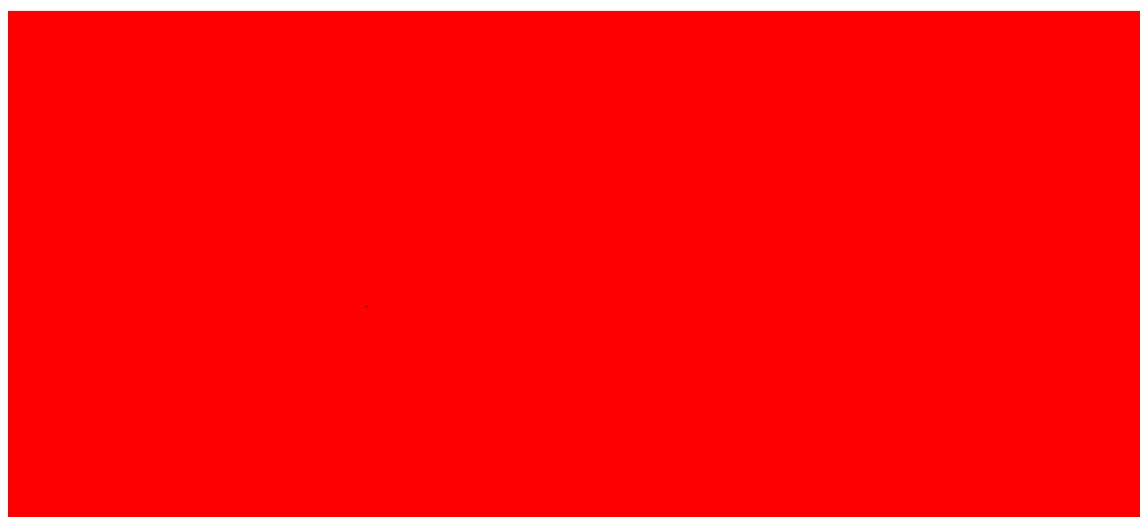
"This 24-hour rush made me think that design is not only about conducting lengthy analysis to understand problematic issues but also simply a question of taking action. Social design can be that straightforward."

**Mitja Behnke** | **Student, Strate School of Design**

Health

Hola: Communication System for Emergencies

A DIY communication system for use during flood disasters, consisting of a step-by-step printed manual costing less than one Mexican peso. The system proposes the use of household items like plastic bags, T-shirts, and masking tape as tools to create symbols that indicate emergencies or needs (food, water, medical assistance, clothing, blankets). The signs are easily visible to individuals in nearby homes or to emergency personnel when displayed on windows or rooftops.

Workshop Leader | Cecilia León de La Barra

Students | Monserrat Alanis (Art Center), Melissa Nguyen (Art Center), Priscila Luna (CEDIM), Jaime Saldivar (CENTRO), Gabriela Ferrufino (Escuela de Comunicación Mónica Herrera), Celeste Ortega (Parsons School of Design), Mitja Behnke (Strate School of Design), Xheida Simancas (UNAM).
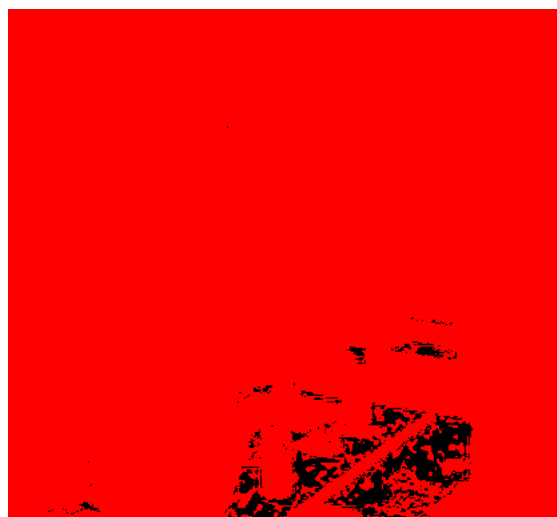
"When you're in extreme conditions, your survival mode is on. From this project, when we were under pressure we were able to tap into this creative force; I thought that having a limitation in design is very important to really push ourselves, to get these crazy, awesome ideas."

Andrew Kim | **Student, ArtCenter**

Mobility

Parasite

A smart electronic system to be attached to stoplights and activated during a power outage or an emergency in specific locations in the city. It is designed to alert citizens and give indications in order to direct or divert traffic as needed. The system is powered by solar panels and communicates internally through Wi-Fi chips.

Pushcarts

A mobility system that uses basic, locally available resources (crates and pushcarts) in disaster zones to transport injured people and/or provisions.

Workshop Leader | José Allard

Students | Andrew Kim (Art Center), Andres Zavala (Art Center), Pablo Badillo (CENTRO), Macarena Esturau (CENTRO), Jonathan Mehraban (CENTRO), Diego Ciudad-Real (Escuela de Comunicación Mónica Herrera), Alyssa Kropp (Parsons School of Design).
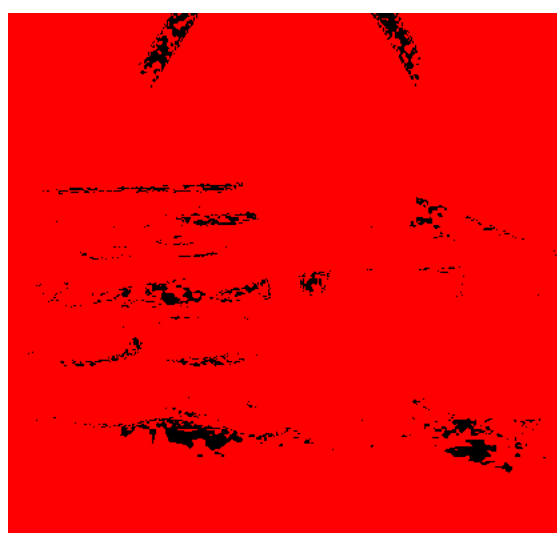
"Design Under Pressure gave me the opportunity to approach design from a different perspective, one much closer to people. The vision was centered on working with users to build replicable communication strategies with powerful messages, focused on making a positive social impact in the contexts where they will be implemented."

Gabriel Sánchez | **Student, CENTRO**

Communication

Sí corro, sí grito, sí lucho | **I run, I yell, I fight**

A social communication campaign that questions the classic rules of evacuation from buildings (no running, no yelling, no pushing), reflecting on how this advice engenders compliant and passive attitudes. Interviews with residents from the América neighborhood about their experiences in the September 2017 earthquake revealed a widespread lack of trust and sense of community. The project challenges the official evacuation phrase and replaces it with "I run, I yell, I fight" during an emergency situation. It also introduces an anti-hero /heroine figure, encouraging members of the public to break the rules in order to do what is right and help.

Workshop Leader | Nik Hafermaas

Students | Luis Fernando Colchado (CENTRO), Rodrigo Cuevas (CENTRO), Gabriel Sánchez (CENTRO), Hailey Choi (College for Creative Studies), Eliaenai Barajas (Design Academy Eindhoven), Gabriela Cladellas (Escuela de Comunicación Mónica Herrera), Sara Wong (Syracuse University), Nora Garduño (UVM).
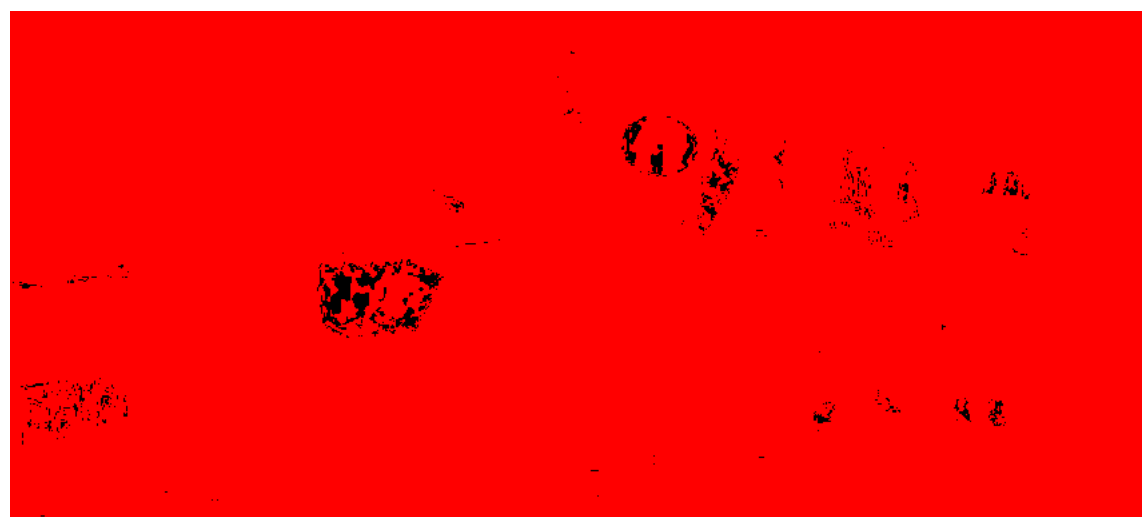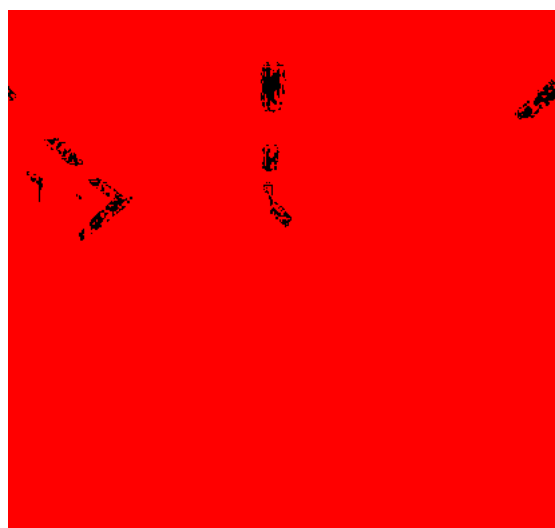
"I learned teamwork and how to think about the users and their needs in their own context."

Beatriz Rivera | **Student, Escuela de Comunicación Mónica Herrera**

Shelter

Shelter Mx

The project proposes a structure—made of reused scaffolding, tarp or fabric—which can be assembled within existing shelters in response to the need for privacy and a sense of safety amongst users. The project includes a construction and arrangement manual to make it replicable in any improvised shelter.

Community

Pyramidal, MDF structures that can be used as emergency housing and as community spaces that encourage interaction and strengthen social bonds. The project contemplates reusing leftover materials from CENTRO's Industrial Design workshops to create structures and install them in two public community centers ("Faros del Saber") close to CENTRO. Apart from providing an everyday meeting place and somewhere to hang out, in an emergency they would be distributed as temporary shelters for those in need.

Workshop Leader | James Meraz

Students | Mariana Alcocer (CENTRO), Mario Hernandez (CENTRO), Andrea Malo-Juvera (CENTRO), Estaban Párraga (CENTRO), Beatriz Rivera (Escuela de Comunicación Mónica Herrera), Raquel Saravia (Escuela de Comunicación Mónica Herrera), Aniya Kudysheva (Parsons School of Design), Romain Delègue (Strate School of Design).

"Setting up emergency brigades in cities can be very interesting because designers can articulate different solutions and help different search and rescue teams—firemen, police officers, doctors—by applying our knowledge to come up with creative solutions using materials to hand. This represents a very interesting challenge that requires the ability to empathize with others, the ability to react fast, versatility, a lot of creativity and skill at connecting things."

José Allard

"I'm fascinated by the idea of an Emergency Design Force as a very relevant tool in the aftermath of a disaster, because what designers can do is to think and create on their feet and to be adaptable to whatever situation is playing out. So this isn't about prescribed formulations, and designing for every possible eventuality in advance, but about reacting spontaneously to whatever the specifics of a disaster situation could be. I'm absolutely convinced that alongside the traditional rescue forces (the police, fire, ambulance services, etc.), having a team of designers who can react through their problem-solving skills to whatever is thrown in their way makes absolute sense."

Nik Hafermaas

"It seems important for cities to have designers in emergency brigades, because we can act as bridges between local communities and the authorities.
As designers we have the tools to organize, communicate, and execute designs to provide support and relief during a crisis. Encouraging collaboration between specialists, designers and rescue teams could definitely be put into action in an emergency situation."

Cecilia León de la Barra

"I think the notion of a design force is a great idea but it depends on how we implement it. Designers by nature want to be problem-solvers, but we tend to design for ourselves. To be a good problem-solver and to have a design force requires to really understand who we design for, all types of people and backgrounds, and other aspects of human-centered design. In terms of a design force, I think it requires all types of designers, industrial designers, environmental designers and architects who can work together, especially in an earthquake. There are many physical, psychological, emotional aspects that designers can really help out with. You don't need just a roof—you need somewhere calm, and you can't make a calm place unless you understand the community and the culture; what's calm for me isn't necessarily calm for you."

James Meraz

WantedDesign & Design Schools
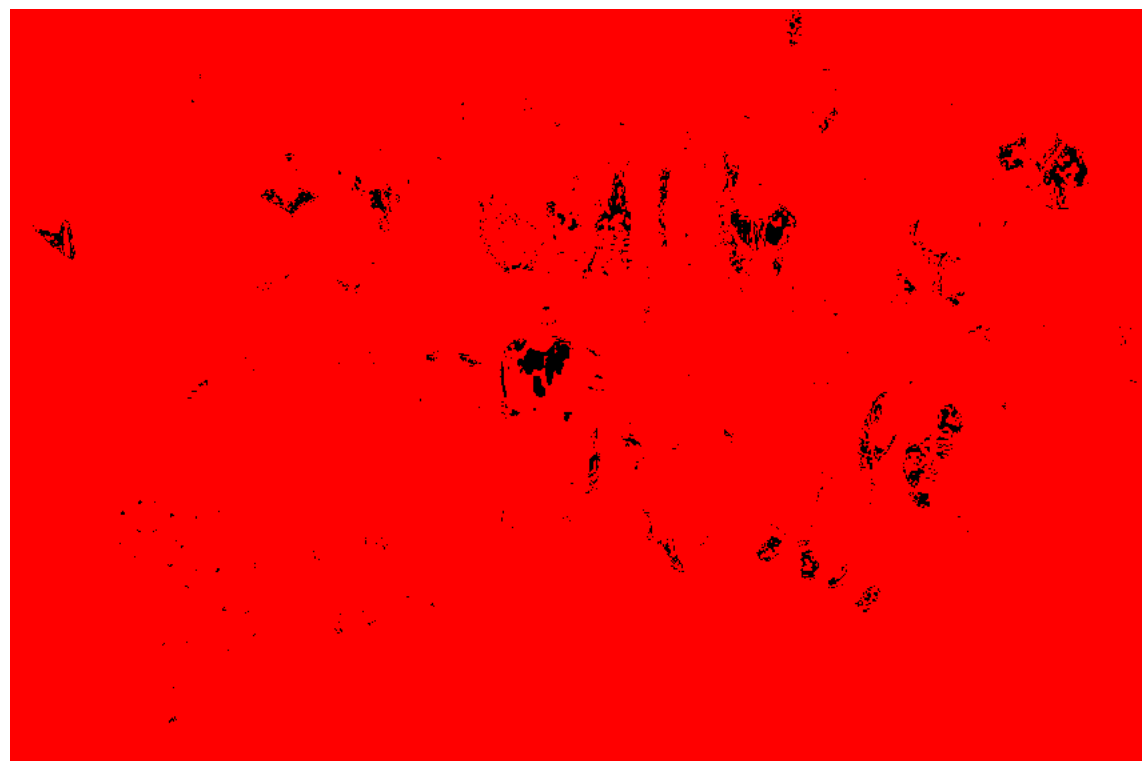
Founded in 2011 by Odile Hainaut and Claire Pijoulat, WantedDesign is a platform dedicated to promoting design and fostering the international creative community at large. It emphasizes the importance of design education, offering schools the possibility for building an international network while giving students the opportunity to have experiences outside their campus. WantedDesign takes place during May's NYCxDESIGN, with two marquee events in Manhattan and Brooklyn.

WantedDesign Brooklyn is the main graduate design show in the US, presenting students work from schools all over the world. WantedDesign Schools Workshop is co-organized in partnership with one school to work under a specific theme (CENTRO has been part of it for seven years and has co-hosted once). It brings students from international design schools to participate in a fast-paced, collaborative, energized process of ideation, exploration, and creation.

In 2018, WantedDesign cohosted the workshop "Design Under Pressure" with CENTRO. This effort demonstrated that designers could play a bigger role in times of crisis in bringing fast and tangible solutions. Its success reflects the current need of schools to look at new ways of preparing students for to their professional life in proposing new formats and new ways to be challenged, to go out of their comfort zone, to create their own international network, and to share their educational and cultural backgrounds. This seeks to encourage them to embrace a more human-centric approach, and help them develop not only technical skills, but their curiosity, about others, about society, about the environment, and approach their work with more empathy and responsibility.

Odile Hainaut

Concordia

Since 2015, CENTRO has organized a series of international forums on higher education that have proved essential to stimulate reflections on certain issues. This chapter offers a perspective on Concordia, a symposium on education and social impact held in May 2018, with excerpts from the presentations made by the speakers, many of whom are also contributors to this book's Conversations and Design Under Pressure chapters.

Over the past two decades we have been witnessing a paradigm shift in higher education's processes, structures, and systems. Discussing its future is essential and therefore, since 2015, CENTRO has organized a series of international symposiums (generously supported by Universia Santander) with leading figures from the world of design and other disciplines. These events aim to generate vital new perspectives on education, and to encourage dialogues based on a wide range of experiences, fields of study, and ideas.

CENTRO's fourth symposium in this series, held in May 2018, focused on social impact. The variety of professional backgrounds, ages, and contexts of the twelve guest speakers (from Belgium, Brazil, Chile, Mexico, the Netherlands, Singapore, the United Kingdom, and the United States) was essential in contributing a range of perspectives that confirmed how institutions of higher education, students, education, and the ways of designing solutions are changing around the world.

Concordia was structured around three central questions: How to train and educate students to become future leaders and social innovators? What are higher education institutions doing to become agents of change, in order to make a positive impact on their communities and contexts? What are the most effective financing and management models for social impact initiatives in education?

The ideas generated at the symposium reflected a wide variety of cases and visions, such as the inclusion of interpersonal skills in training programs; the importance of experimentation in designing innovative social solutions; the relevance of teamwork and "bottom-up" participation and sharing; design for immediate surroundings using basic resources; scalability and mass-impact; and the use of technological resources.

The following texts offer illustrative samples from the different presentations, hopefully providing inspiration and a source of reference. The full, edited transcripts of Concordia can be consulted in an electronic publication that can be downloaded from CENTRO's website.

"The subject of this symposium is social impact. Two months ago we were in Washington at a large conference for the presentation of an award given to a leader in the field of education. The first thing that this person said was: 'Talent is equally distributed; opportunity is not.' This led me to think: What are those opportunities that are not equally distributed? Access to healthy food, a safe home, infrastructure, transport, finance… A series of things that help us live our lives. But I think that the most important resource or opportunity is education. Education not only gives you access to this resource, but it helps you create it, duplicate it, pass it on to others; that's why I think this symposium is essential for today's world."

Kerstin Scheuch | **Director General CENTRO**

"We've spent many years talking about educational innovation and the changes required by our education models and higher education institutions to respond to the current needs. However, many forums exist where we run the risk of overlooking the social aspect by focusing on issues such as disruption and innovation. Social impact is precisely what this innovation and transformation of our education models needs to consider. If we ignore it, there's a danger of dividing the debate into two channels: one about education innovation and the other about social impact, when in fact both go together."

Arturo Cherbowski | **Director Universia Santander**

"The Social Design Hub is both a project and an act of faith, not just of CENTRO's community but also of the local residents who come and believe that in here they can find something worthwhile. Each context is unique, and there is no given formula. […] A key part of this project is that it's not about philanthropy or charitable giveaways; it's about building a community in which our students are able to develop a series of values and an understanding of design focused on people. We think this is going to make a significant difference in their future lives and careers. […] We need to build up relations based on respect and trust; to work with the community and not for the community; to share exchanges and values. And we also need to be open to learning new things. […] We must be aware of the potential harm we can cause if we're not conscious of everything that is out there."

Paulina Cornejo | **CENTRO**

"Design is more than just a functional or aesthetic act. In designing, we must recognize that design impacts, and must therefore reflect, its surroundings. […] Dementia can easily be seen as a kind of generalizable topic, but in our approach […] students are actually making a personalized design that can be transferable later. This working together is a form of participation; students are responding to this person's needs, their wants, their interests, and especially their abilities. And they search for ways to get this person involved in the design process, which also requires students to value not only the person with dementia and their input, but the people surrounding the person: caregivers, family members, friends, volunteers and loved ones. They must integrate themselves into the daily life of care. […] We see that design is no longer purely about products, but about services and how these have an impact on people. It's about relationships […] and engagement, and how we have to engage deeply in the context, and with the persons for whom we design."

Niels Hendriks & Andrea Wilkinson | Luca School of Arts

"When we started De Bildung Academy we did know that we wanted things to be different. As a small group of students, all from different disciplines, we agreed that our university studies were far too specific and too theoretical for a world that is not theoretical or specific at all. […] What is the Bildung concept? […] It's about relating actively and consciously to the self, to other people, and to the world around us. We believe that to do this you need competences, and we came up with four. The first one is the critical-analytical competence, and this is the one we think is being taught well in most universities. But the other three (empathetic, expressive, and ethical competences) are overlooked […]. We think that mastering these competences enables students to change, to make a change, to act in the world. […] Every program offered at De Bildung Academy starts with asking questions: Who am I? Where do I come from? What are my values? And, eventually, what do I want to do?"

Roos van Amstel | **De Bildung Academie**

"I've talked to my colleagues about Rio de Janeiro being a 'broken' city, where parts of the city don't talk to each other and tensions exist between different areas. But instead of leaving my neighborhood to help others (where I don't belong), I could make transformations starting where I live, through interactions with other parts of the city, and thus help to reconnect it. […] An education that genuinely fosters and nurtures social change must start within our own context of life, because we know the problems around us and we can change them from the inside. Secondly, I believe that such an education should enhance students' awareness of their power as designers to transform, promote, and reduce inequalities. And thirdly, it is about nurturing students' independence as they work on defining their own personal design brief in their dual role as both designer and client."

Carla Cipolla | **Universidade Federal do Rio de Janeiro**

"Finding a way to say yes is one example of a growth mindset that is very much part of the spirit of Babson and The Lewis Institute. That means promoting unusual partnerships, creating contexts in which different people come together, and understanding that this is a nonlinear journey. […] I work with companies focused on social and economic value-creation and it's becoming increasingly clear from the C-suite position that these issues are not separate from business. In the same way that design cannot be neutral, business cannot be neutral in today's 'change of era' in terms of current social issues and the environmental implications of our actions […]. Companies need to be sustainable to go on existing in the future. We have tried to embed these ideas into the campus, as well as with any of our partners. […] It's about change-making, social innovation, and thinking of the university as a learning lab as well as a place for driving real outcomes in real-time."

Craig Vida | **Babson College**

"The Talca School of Architecture is built around three core ideas: action, material, and place. Action is understood as a way of moving around a specific territory: there's a way in which the body moves, how our students walk […]. Material is approached with the idea of working with what is at hand, available; what we can find, what has been discarded or abandoned, whatever is cheapest. And place is a complex territory in an economic and cultural sense, requiring an in-depth understanding of it in order to engage with it. We needed a school that had traditional architecture course modules (construction, structure, history, theory, etc.), but also some others that were different; subjects that somehow encompassed this action, material, and place. […] The idea is to take architecture to places that haven't been reached before, where it doesn't exist, and where it could serve a public purpose […]. Our graduates are working in government jobs or setting up their own studios; but they're the ones who are now engaging directly with the region; they're the ones who are at the helm, taking the region in a new direction after having simply been left to its fate for years."

Blanca Zúñiga | **Universidad de Arquitectura de Talca**

"The whole Talca experience is outstanding, even in its tremendous modesty as a city that is not even a city—and yet is no longer a town. This is where this phenomenon took place, thanks to the vision and inspiration of Juan Román and all the team around him. I've had the opportunity to follow the development of many of these works, and the entire process. And really, it has not only permeated the region described by Blanca Zúñiga, but I promise you that it has even reached Mexico. There are now some schools trying to replicate this phenomenon which, undoubtedly, is very inspiring because it turns the whole learning process around. It isn't about having the best students as they are classified in Chile, but about the importance of their purpose: Go forth and see what you can find."

Miquel Adrià | **CENTRO**

"I have been leading a group called the Public Collaboration Lab (PCL), a joint project between an art and design school and a local council. […] The Desis Network (Design for Social Innovation and Sustainability) understands that design schools—and the staff and students in those schools—are social resources, and that the community context is a learning environment. We apply that in our work with local government and citizens. […] PCL creates a de-risked space for experimental learning; it widens participation and creates opportunities for lifelong learning, because everyone involved in those projects are all learning from each other; and it creates future opportunities for graduate designers because everyone involved starts to understand what design can do, and maybe they would want a designer on their team in the future. For students, PCL gives confidence and capability, meaning and value […] and experiential learning."

Adam Thorpe | **Central Saint Martins**

"I have had the privilege of directing the School of Design at the Pontifical Catholic University of Chile. […] We are very interested in human-centered design. In recent years, we have included more sociologists and anthropologists than designers in our faculty, which has proved particularly enriching for how we consider the 'other.' […] The university has undertaken a commitment to make an impact on society. We are convinced that knowledge has to leave the university, and we're also aware of our enormous responsibility with our surroundings. […] The Public Innovation Laboratory is a joint initiative involving the Catholic University's Public Policy Center and School of Design. We want to improve the quality of public services that we deliver to the citizens. […] One of our aims is to understand users' needs, co-diagnose problems and co-create solutions, recognizing the multiple realities that exist for all stakeholders."

José Allard | **Pontificia Universidad Católica de Chile**

"We set up Opportunity Lab a couple of years ago at the Singapore University of Technology and Design. […] In the design classroom we have an architecture instructor —myself—and an engineering instructor. We have students […] working on real projects with companies and multidisciplinary teams. In approximately two terms they must come up with a new design and sell it to a company, which will then see whether they want to adopt the idea or not. This is a whole new approach to education, at least in Singapore. A very bottom-up process; […] we empower students to go out of the classroom and to try new things with the communities. […] We adopt a research methodology of participatory action research so that projects are usually driven by students. Instructors are therefore mentors who give guidance, encourage, and pull strings to help them get funding. Ours is a co-design, co-creation and co-ownership process."

Chong Keng Hua | **Singapore University of Technology and Design**

"Ashoka is a social organization in the field of social
entrepreneurship, and our vision is to create a society
of agents of change. We see social entrepreneurs as being
those people leading an innovative initiative to solve
a social or environmental problem, and considering how
to turn their solution into something systemic. […]
Some years ago, we realized that we were demanding
a lot from the entrepreneurs regarding their systemic
change, […] so we redefined our vision into: 'Everyone
is a changemaker.' […] Then we began to work on many
fronts. Ashoka U is about how to leverage universities
so that they can become centers of social innovation. […]
Over time we might be able to define higher education
institutions not so much as places to study a professional
discipline but a place where you can learn how to put
your talent and passion at the service of the community;
so then university graduates will define success in that way,
and know how to become agents of change."

María José Céspedes | **Ashoka México**

"Southern New Hampshire University has always been a non-profit institution and has largely grown around the area. But, since 2018, we have become an international university, serving more than 100,000 students. Unsurprisingly, the majority of our students learn online […] We have a large addressable market of learners who are currently excluded from—and underserved by—the existing system. So the challenge is how to scale educational solutions to meet this population's educational needs. […] We cannot create solutions for populations that already have resources at their disposal. We have to pick the hardest places. We have to pick wicked problems. We have to pick fights with big problems, go after some of our most vulnerable and disadvantaged populations in the world and innovate there. That is the core of our focus, mostly through online learning and high-impact assessment."

Brian Fleming | **Southern New Hampshire University**

"I've found these presentations enlightening and they have given plenty food for thought, but there are a couple of ideas I would like to share: the importance of looking around us and getting out into the world; to find the problem and the solution right there. […] I have also learned to restore the power of the conversation and one-on-one engagement, unmediated encounters. […] We need to take on the role as agents of change ourselves without waiting for someone to appoint us in that role; […] many of the projects brought up the idea of creating space for trial-and-error, and serendipity—the magical discovery. […] I learned that social innovation requires empathy, trust, critical thinking, skill at materializing things, metacognition, a lot of curiosity to get out there, and flexibility to exchange the teaching role, to be the conductor of the orchestra. Because everyone is an expert in their own life. So you need to give other people their place, listen and learn from them."

Karla Paniagua | **CENTRO**

Contributors

Miquel Adrià
Conversations

BA in Architecture from Escuela Técnica Superior de Arquitectura de Barcelona. PhD from Universidad Europea de Madrid. Resident in Mexico City since 1994. Editor of *Arquine*, International Architecture Magazine and author of 40 books about Mexican and Latin American contemporary architecture. Jury member for international competitions and at the World Architecture Festival. Co-director of Mextrópoli Architecture & City Festival. Chair of CENTRO's Architecture Masters.

José Allard
Conversations / Design Under Pressure / Concordia

BA in Fine Arts from The Corcoran School of Art, MA in Fine Arts from California Institute of the Arts, and PhD in Industrial Design and Multimedia Communication from the Politécnico di Milano. Former director of the Design School of the Pontificia Universidad Católica de Chile (UC), where he is currently member of the faculty. In 2013 he established, in collaboration with the UC Public Policies Center, the Public Innovation Laboratory which he currently co-directs. Member of the Cumulus directory, Allard is also actively involved in project development, research and design for emergencies. Coordinator of the book *Design for Emergencies*.

Angélica Carrillo
Conversations

Video-maker with a BA in Broadcast & Media from the Universidad Nacional Autónoma de México, where she subsequently held a professorship in the field of Journalism & Media Production for a decade. She currently works as content manager and professor of Film Analysis and Journalism Genres at CENTRO, from which she received an MA in Design Studies. Also a member of CENTRO's Social Design Hub. Author of several articles, essays, and conferences on diverse topics such as television, journalism, film, documentary and digital media.

Keng Hua Chong
Conversations / Concordia

PhD in Architecture. Principal researcher of the Social Urban Research Groupe and co-head of Opportunity Lab at Singapore University of Technology and Design. Curator of the Singapore Pavilion at the Venice Biennale International Architecture Exhibition 2018. His research focuses on social architecture, particularly in the areas of ageing, liveable public place, and data-driven collaborative design. Former visiting faculty at Massachusetts Institute of Technology. Most recent books are *Creative Ageing Cities: Place Design with Older People in Asian Cities* and *Second Beginnings: Senior Living Redefined*.

Carla Cipolla
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PhD in Design from Politecnico di Milano. Since 2004 she has been involved in projects on design for social innovation in Europe, Africa, and Brazil. Professor at the Universidade Federal do Rio de Janeiro (UFRJ), international coordinator of DESIS Network (Design for Social Innovation and Sustainability), and coordinator of the UFRJ DESIS Lab. Her research and design activities focus on design for social innovation and service design, emphasizing international cooperative and comparative projects of relevance to specific Brazilian issues.

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BA in Art History from the Universidad de Barcelona and an MA in Design Studies from CENTRO. Since 2014, she has been head of CENTRO's Social Design Hub, where she also teaches and carries out research. Curator of the Gelman Collection of Mexican Art and art projects with a social focus such as Residual / Art Interventions in the City (UNAM-Goethe Institute). Author of *100 Tácticas Creativas para la Seguridad Ciudadana*, a toolkit published by the National Crime Prevention Center. Guest editor for specialist magazines and author of articles featuring in international academic publications.

Gina Diez Barroso
Foreword

Entrepreneur and philanthropist committed to the development of design and innovation projects in Mexico. She is the founder of Grupo Diarq, one of the most important design and real estate development companies with offices in Mexico and the United States. Founder and president of CENTRO, the first university in Mexico focused on creative education. Founder of Diez, a company that designs, manufactures, and exports Mexican lighting. President and founder of Dalia Empower, a global initiative with learning experiences for women in all economic sectors to help them achieve their personal and professional goals. Board member and advisor for numerous organizations and member of C200, Women's Executive Leadership Organization and representative of Mexico at the W20 women's initiative of the G20.

Nik Hafermaas
Conversations / Design Under Pressure

International award-winning artist, designer, and educational leader. He has led several international projects and workshops in the realm of social innovation design in Mexico, China, Cuba, and Europe. After reforming the graphic design programs at ArtCenter College of Design in Pasadena, California, he recently moved back from Los Angeles to Berlin as the executive director of ArtCenter's Berlin satellite studio and to rejoin TRIAD Berlin, a creative agency that he helped to develop. His artist platform is Ueberall International.

Odile Hainaut
Design Under Pressure

Educational background in French literature at the Université de la Sorbonne-Nouvelle, Censier Campus, performing art at the Cours Perimony, and musicology at the Université Paris-Sorbonne). Former public relations and events organizer for international design and branding agency force MAJEURE. In 2007, she founded the experimental Gallery R'Pure in New York. Along with Claire Pijoulat, she created WantedDesign, a platform dedicated to promoting design and fostering the international creative community, with marquee events during NYCxDESIGN.

Cheryl Heller
Conversations

Business strategist and designer. Director of Design Integration and professor of Practice in Innovation Design at Arizona State University. Founding chair of the first MFA program in social design at School of Visual Arts New York. President of the Measured Lab, and founder of the design lab CommonWise. She has designed strategies for hundreds of successful entrepreneurs. Recipient of the AIGA Lifetime Medal for her contribution to the field of design, a Rockefeller Bellagio Fellow, and a Senior Fellow at the Babson Social Innovation Lab. Author of *The Intergalactic Design Guide: Harnessing the Universal Creative Energy of Social Design.*

Uzyel Karp
Conversations

MBA in Design, Typography and Printing at the Basel School of Design, he began his professional practice in Switzerland. In Mexico, he founded the "Taller de Comunicación Gráfica," which has specialised in the realisation of cultural projects, He is also actively involved in project development, research and design, his editorial projects have been recognised by multiple institutions across the world. Karp has also participated in social projects encouraging people to read through illustrated books that involve poets and illustrators. He has taught classes and workshops in bachelor's and master's degrees at private and public universities and designed several university-level program curriculums in the field of visual communications. Since its foundation he is the chair of the Visual Communication programs at CENTRO.

Graciela Kasep
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BA in Communication Sciences and Journalism from the Universidad Nacional Autónoma de México (UNAM) and MA in Art History from the UNAM's Graduate School of Philosophy. Head of the Creative Economy Research Center (CIEC) at CENTRO. Her research explores 20th-century and contemporary art as a mode of social and civic expression. Kasep has curated a number of large-scale exhibitions in Mexico City. She has been developing research and curatorship on expanded cultural production and urban culture topics.

Cheryl Kiser
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With a BA in Community Organization, Social Policy and Planning from Boston College, she has always been at the intersection of public policy, private enterprise, and community. Executive director of The Lewis Institute for Social Innovation and The Babson Social Innovation Lab, where she co-created the Food Sol—an "action tank" dedicated to using entrepreneurship to redesign the food system. Formerly managing director of the Boston College Center for Corporate Citizenship. For over a decade she managed the content and delivery of the International Corporate Citizenship Conference.

Cecilia León de la Barra
Design Under Pressure

BA in Industrial Design from Universidad Iberoamericana (UI) with an MA in Design Studies from CENTRO, her work varies from product and furniture to interiors, consulting, and curating design. As an academic, she has taught industrial design at UI and currently teaches at CENTRO. Curator of the design section in ZonaMaco art fair in Mexico City since 2014. Author of *A Collection of Memories: Mexican Design, 1999-2015*.

Brendan McGetrick
Conversations

Writer, curator, and designer. His work has appeared in publications in more than thirty countries. Projects include *Content*, *MAD Dinner*, and *Urban China: Work in Progress*. Curator of Unnamed Design, a component of the 2011 Gwangju Design Biennale, in collaboration with Ai Weiwei. Co-curator of the exhibitions Fair Enough in the Russian pavilion at the Venice Architecture Biennale, and of California: Designing Freedom at the Design Museum in London. Former chief writer at the research and design studio AMO. Since 2015, he has been the director of Global Grad Show.

Mónica Mendoza
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BA in Textile Design from the Universidad Iberoamericana (Puebla Campus), and MA in Fashion Communication & Styling from IED Moda Lab Milan. Chair of Textile and Fashion Design at CENTRO since 2015. In Milan she worked with Marni, Fendi, Dolce & Gabbana and Gianfranco Ferrè at various events, and later joined the PR team of Calvin Klein Inc. In Mexico she was director of design, development and preproduction for Chedraui Textil. Advisor for design and product development (textiles and handcrafts) for various social enterprises in Mexico and in the United States.

James Meraz
Design Under Pressure

BA in Architecture from SCI Arc, Los Angeles. Full-time professor at the Art Center College of Design in Pasadena, where he teaches in the field of environmental design, a multi-faceted and emerging profession which encompasses and blurs the line between many design disciplines. Former instructor at UCLA, Sci-Arc, and Otis College of Design. In 1992, he founded Studio Meraz, Inc., a multidisciplinary design consultancy firm with a background in interior architecture, furniture design, sculpture, and exhibition design.

Sebastián Ocampo
Conversations / Design Under Pressure

BA from the Ecole National Supérieure des Arts Décoratifs de Paris. Active member of Wanted Design New York. Tutor for the Young Creatives program of the National Fund for Culture and Arts in Mexico. Project Manager of Fundamento, working on reconstruction of houses after the earthquakes of September 2017, in collaboration with CENTRO and other institutions. Chair of CENTRO's Industrial Design department and director of the Graduate Specialization course in Technologies of Material Transformation.

Karla Paniagua
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BA in Social Communication from the Universidad Autónoma Metropolitana (Xochimilco Campus). MA in Social Anthropology from the CIESAS, and a PhD in Transdisciplinary Studies of Culture and Communication from the Instituto de Investigación en Comunicación y Cultura in Mexico City. Researcher, author of books and articles, professor with almost 20 years' experience specializing in the design of learning experiences. Head of the Future Studies department and coeditor of CENTRO's *Economía Creativa* magazine.

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BA in Art History from Vienna/St. Andrew's and an MBA from INSEAD (Fontainebleau). Director general of CENTRO since 2004. Previously, consultant at the Art Center College of Design (Pasadena/Barcelona) and executive consultant at KPMG in London. In Vienna she was managing director of The Secession, head of marketing of the 23rd Council of Europe Exhibition and department head at Sotheby's. She is an expert in strategy, innovation and education, and is featured in the book: *Women of Design: Influence and Inspiration*.

Ashby Solano
Conversations

BA in Industrial Design from the Universidad de los Andes de Mérida in Venezuela, and an MA in Design Studies from CENTRO. Faculty member and director of technological research projects at CENTRO. She has more than 12 years' experience in product design, strategic management, development, organization, planning, and coordination of design projects.

Carry Somers
Conversations

BA in Languages and European Studies from Westminster College, Oxford, and an MA in Native American Studies from the University of Essex. Founder of Fashion Revolution, the largest global fashion activism movement. Her brand Pachacuti pioneered radical supply chain transparency, mapping the GPS coordinates of each stage of the production process. Her collections were shown at London, Paris, and Milan Fashion Week and sold in some of the world's foremost luxury stores. Carry has contributed to several books and publications and won numerous awards for her work.

Gabriela Traverso
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PhD in Philosophy from the Universidad Iberoamericana. Chief academic officer of CENTRO and chair of the MA program in Design Studies. With more than 15 years' experience in academic management, Gabriela has specialized in identifying current challenges facing higher education. Specialist in assessing higher education, technology, and education and the development of new teaching formats for higher education.

Ignacio Urbina Polo
Conversations

BA in Industrial Design and MA in Product Engineering, with a graduate specialization in bionics from the Universidade Federal de Santa Catarina in Brazil. Formerly director of Prodiseño Escuela de Comunicación Visual y Diseño in Caracas. Head of the Exhibition Design team for the Andean-Amazonian Pavilion in Japan. Member of the Advisory Committee of the Ibero-American Design Biennial in Madrid. Guest professor at universities in more than 15 countries. Editor of *Di-Conexiones* and chair of the Industrial Design department at the Pratt Institute in New York.

Óscar Velázquez
Conversations

BA in Economics from the University of California and MA in Development Economics from Universiteit Utrecht. His passion is developing and strengthening projects that challenge the status quo, foster better societies, and not destroying the planet. Director of Smart Impact, a project accelerator of circular economics and technology in Mexico City, and cofounder of FabLab Impact, an open innovation center focused on product development, digital manufacturing, social innovation, and design.

Blanca Zúñiga
Conversations / Concordia

BA in Architecture from the Universidad de Chile and MA in Housing and Urbanism from the Architectural Association School of Architecture in London. Faculty member of Universidad de Talca's Architecture School since 2000, responsible for architecture workshops for urban, rural, and collective housing. Professor of built projects and thesis workshops. Exhibitions of her work have been held at Akademie der Kunste in Berlin (2015). Guest professor at several international universities. Member of the team responsible for the urban installation of Mülltuten and Il Manto Rosso in Kassel, Germany and Palermo, Italy.
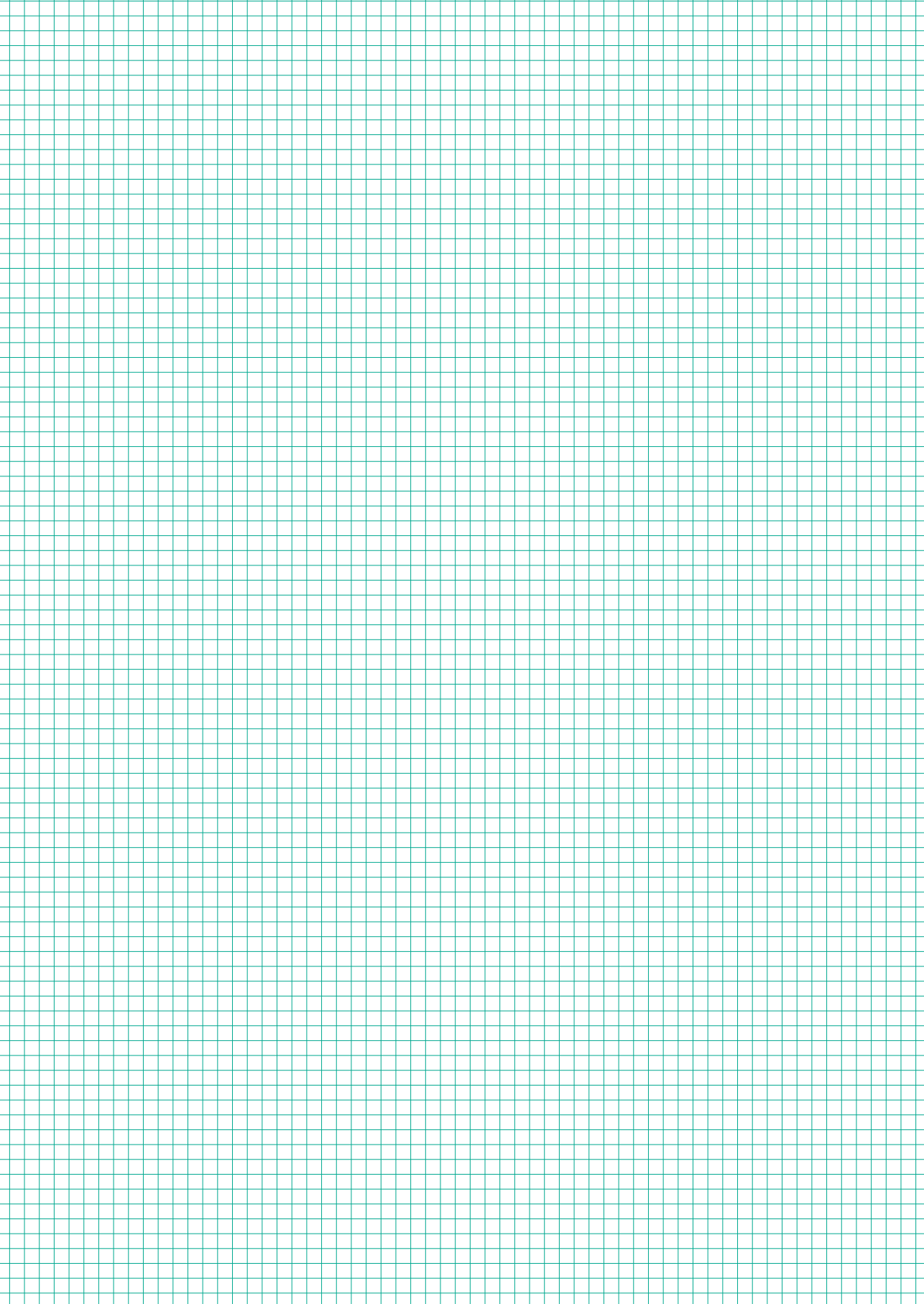
Experiential Learning

Citizenship

Language

Failure

Activism

Future of Design

Innovation

Health

Collaboration

Aesthetics

Sustainability

Community

Circular Economy

Design For Emergency

Design Thinking

Education

Entrepreneurship

User-Centered Design

Prototyping

Radical Change

People-Centered Design

Power

Social Impact

Fashion Transparency

System Thinking

Social Innovation

Creativity

Technology

Public Space

Transparency

Social Businesses

Social Design

Water Recovery

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Acknowledgments

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About CENTRO

CENTRO is an urban model for higher education in design, architecture, digital media and film in Mexico City. It focuses on the critical role of creativity in analyzing and resolving problems of varied complexity in diverse contexts, using a human centered and system-oriented approach.

Through a specialized and personalized educational model, CENTRO forms creative experts with a socially conscious, sustainable, and entrepreneurial perspective. It offers 7 undergraduate and 20 graduate degree programs to future generations of creative leaders in Mexico and beyond.

President
Gina Diez Barroso

Vice President
Abraham Franklin

Director General
Kerstin Scheuch

Chief Academic Officer
Gabriela Traverso

Chair of Architecture
Miquel Adrià

Chair of Business,
Innovation and Creativity
Gabriel Charles

Chair of Contemporary Art
Management
Kerstin Erdman

Chair of Film and Television
Jorge Bolado

Chair of Industrial Design
Sebastián Ocampo

Chair of Interior Architecture
Beata Nowicka

Chair of Marketing
and Strategic Design
Miguel Torres

Chair of Media Design
and Technology
Roberto Cabezas

Chair of Textile
and Fashion Design
Mónica Mendoza

Chair of Visual
Communication
Uzyel Karp

Curricula

As its name suggests, CENTRO embraces the intersection of different fields such as creativity, business, technology and science. Five transversal areas complement all educational degrees: Business and Entrepreneurship, Research, Culture, Social Impact, and Technology.

Undergraduate Degrees

– Film and Television
– Industrial Design
– Interior Architecture
– Marketing and Strategic Design
– Media Design and Technology
– Textile and Fashion Design
– Visual Communication

Master Programs

– Architecture and City
– Housing
– Business, Innovation and Creativity
– Contemporary Art, Management and Markets in partnership with Sotheby's Institute of Art
– Design Studies
– Global Fashion Management in partnership with Fashion Institute of Technology
– Script Writing

Graduate Certificates

– Contemporary Jewelry Design
– Creative Coding for Designers
– Creative Coding for Video and Animation
– Data Visualization
– Design Futures
– Fashion Marketing
– Fashion Communication and Styling
– Footwear and Leathergoods
– Lighting for Interior Design
– Material Transformation Technologies
– Project Management for Interior Architecture
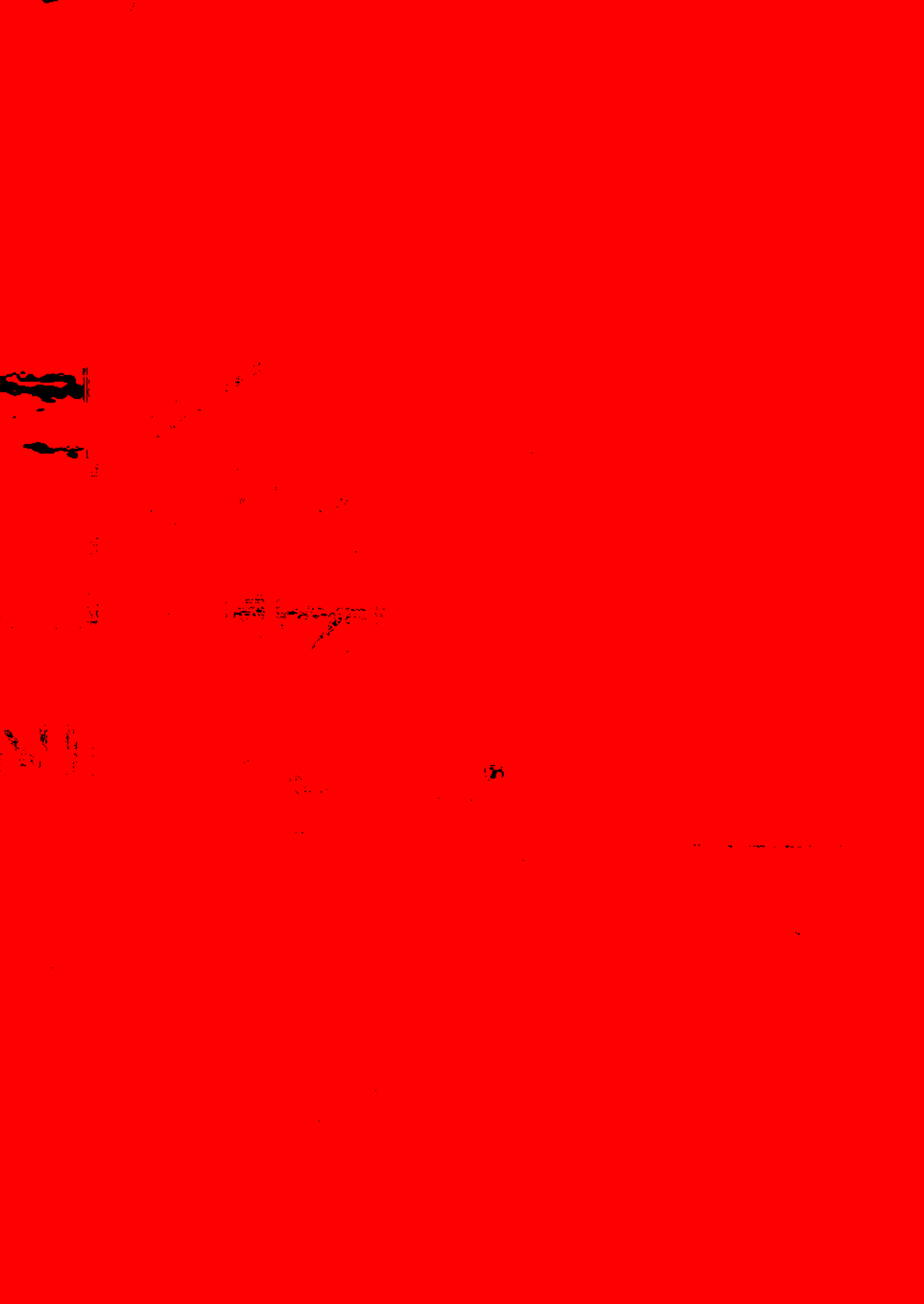– Stage Design
– Typographical Innovation

The environmental aspects of the mill are managed according to the requirements of ISO 14001.
The energy consumed and the emissions generated by the mill are managed according to ISO 50001.
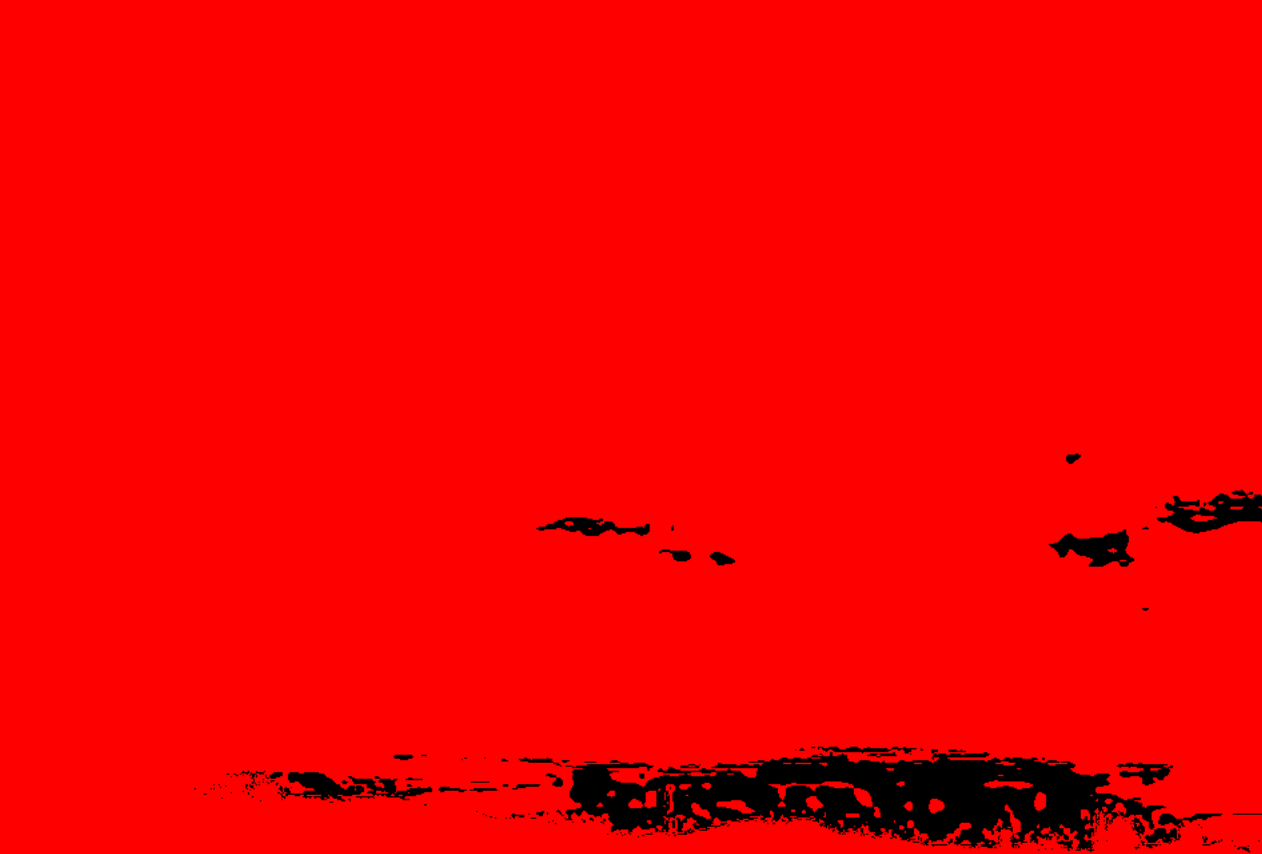
Education and Design for Social Innovation

12 Conversations with international experts
07 Social innovation case studies in Mexico
04 Design Under Pressure projects
15 Key insights from the Concordia International Symposium

Key terms
Activism, aesthetics, circular economy, creativity, citizenship, collaboration, community, design for emergency, design for social innovation, design thinking, entrepreneurship, education, experiential learning, failure, fashion transparency, future of design, health, people-centered design, human-centered design, language, power, prototyping, public space, radical change, social businesses, social design, social impact, social innovation, sustainability, system thinking, user-centered design, technology, transparency, water recovery.