THE DESIGN AFTER

Cumulus Conference Proceedings Bogota 2019

Cumulus Conference Proceedings Series
06/2019 Bogota
THE DESIGN AFTER

Cumulus Conference Proceedings Bogota 2019

Chair
Hernando Barragán
Conference Manager / Dean, School of Architecture and Design
Claudia Mejía
Head, Architecture Department
Ricardo Sarmiento
Head, Design Department

Scientific Committee
Isabel Arteaga
Andrés Burbano
Daniel H. Nadal
Cesar Peña

Editorial Assistant
Melissa Ferro

Graphic Conceptualization
Cumulus Bogota 2019
Andrea Amin
Constanza Díaz del Castillo

Layout Designer
Adriana Páramo
Layout design in reflection of the cumulus conference proceedings series graphical concept by Jani Pulkka 2018

© Universidad de los Andes
School of Architecture and Design
Bogota, Colombia
https://arqdis.uniandes.edu.co/

© Cumulus International Association of Universities and Colleges of Art, Design and Media, Aalto University, School of Arts, Design and Architecture
PO BOX 31000, FI-00076 Aalto
www.cumulusassociation.org

All content remains the property of authors, editors and institutes

ISBN 978-958-774-912-0
ISSN 2490-046X

Publications in Cumulus Conference Proceedings Series

01/17 Rolding, REDO
03/17 Bengaluru, Letters to the Future
03/18 Paris, To get there: designing together
04/18 Wuxi, Diffused Transition & Design Opportunities
05/19 Rovaniemi, Around the Campfire-Resilience and Intelligence
06/19 Bogota, The Design After
The track seeks to examine the role of technology in the urban-rural balance.

**BUILDING NEW IDENTITIES WITH BATIK**
Martin John Bonney .................................................. 21

**SENSING IGOLI: APPLYING TYPOLGICAL ACTIVITY SYSTEM MODELS IN THE DESIGN OF INNOVATIVE AND APPROPRIATE URBAN TECHNOLOGIES**
Terrence Fenn, Angus Donald Campbell .......... 34

**RESEARCH VIDEO: AUDIOVISUAL ETHNOGRAPHY AND BEYOND**
Lea Klaus ................................................................. 48

**AQUA_MATICES: INTERACTIVE AQUAPONICS FOR EXPERIENCE-BASED LEARNING IN STEAM**
Yeferzon Alexander Ardila, Veronica Akle Alvarez, Maria de los Angeles González, Freddy Zapata Vanegas, Johannes Faccelo Osma, Martha J. Vives Florez .............................................. 50

**AN EDUCATIONAL INTERACTIVE DASHBOARD FOR AGROLAB’S AQUAPONIC SYSTEM**
Pablo Figueroa, Leonardo Parra, Freddy Zapata .................................................. 64

**SHANGHAI (1912-1949): VALUE OF CONSUMER GOODS IN THE URBAN-RURAL INTERACTION RELATIONSHIP**
Yanghuan Long, Giang Wang, Chen Fan .......... 76

**INSPIRATIONS FROM JIANGNAN CLASSIC GARDEN TO CITY LANDSCAPE DESIGN REQUIREMENTS**
Shu Xu, Weimin Guo .................................................. 89

**SENSE-MAKING STRATEGIES IN ICT ADOPTION FOR RURAL POPULATION IN THE DOMINICAN REPUBLIC**
Azalya Latorre .......................................................... 103

**RURAL COMMUNITY PARTICIPATION DIGITAL PLATFORM**
Carlos Cobreros, María Elena Melón, Eduardo Rosado, Nobemi Lugo, Mariana Maya .................................................. 115

**INSIGHTS FROM A DESIGN-LED INQUIRY ABOUT RURAL COMMUNITIES IN BRAZIL**
Caio Werneck, Javier Guillet, Bruno Paschoal .......... 125

**HYBRID LANDSCAPES: EXCHANGES BETWEEN ART, DESIGN AND TECHNOLOGY IN THE URBAN INTERFACE**
Facundo Colantonio .................................................. 127

**FINDING A NEW COMMONS: ARCHITECTURE’S ROLE IN CULTURAL SUSTAINABILITY FOR JAPAN’S SHRINKING REGIONS**
Julia Nakanishi, Lola Sheppard (Thesis Supervisor), Jane Hutton (Thesis Committee) .................................................. 140

**AGROLAB: A LIVING LAB IN COLOMBIA FOR RESEARCH AND EDUCATION IN URBAN AGRICULTURE**
Freddy Zapata Vanegas, Giacomo Barbieri, Yeferzon Alexander Ardila, Veronica Akle Alvarez, Johann Faccelo Osma .................................................. 142

**DESIGNING RURAL EXPERIENCES THROUGH SERVICE DESIGN METHODS AND STRATEGIC SCENARIOS: TWO CASE STUDIES IN JALISCO, MEXICO**
Ruth Maribel León Morán, David Sánchez Ruano, Roberto Hiüege Fores .......... 156

**PLANT-DRIVEN DESIGN AND PHYTOTECHNOLOGY TO IMPROVE THE BUILT ENVIRONMENT**
Laura Domínic, Elena Comino, Pier Paolo Peruccio .................................................. 169

**SOCIAL DESIGN FOR TECHNOLOGY TRANSFER: AN EXPERIENCE IN RURAL COLOMBIA**
Juan Manuel España, Pablo Andrés Téllez .................................................. 182
Is it possible for designers to learn and design along with small communities?

A RESEARCH AND TEACHING PROJECT FOR THE MARTESANA DISTRICT
Laura Galluzzo, Claudia Mastrantoni, Ambra Bori, Margherita Rasio, Jixiang Jiang .......................... 248

CARPAS SOCIALES: A STRATEGY FOR SOCIAL INNOVATION IN FENICIA THROUGH AQUAPONICS
Laura Amaya, Freddy Zapata, Catalina Ramirez .......................... 260

INDIGENOUS ANCESTRAL IMAGINARIES AND MATERIAL TRANSFORMATION FROM AN ANTHROPOLOGIC DESIGN APPROACH
Ricardo Lebra Mencarque, Christian Basíez Villagrán .......................... 274

ARTISANS AND DESIGNERS: SEEKING FAIRNESS WITHIN CAPITALISM AND THE GIG ECONOMY
Raphaële Chappe, Cynthia Lawson Jaramillo .......................... 286

SABER DEL MONTE: DESIGN AS A CATALYST FOR SOCI-ECOLOGICAL RECIPROCITY
Lina Lopez-Lopez, Miguel Navarro-Sanit, Natalia Cardenas-Cardenas .......................... 288

PERCEIVED DESIGN VALUE THROUGH THE LENS OF GENERATION Z
Ajla Freimane .......................... 302

DRESS ACTION: AN ALTERNATIVE FOR POSTFASHION
Corneliu Dinu Tudor Bodiciu .......................... 315

EVERYONE DESIGNS IDENTITY AND DETERMINISM IN THE DIGITAL AGE
Miguel Lopez Melendez .......................... 326

‘PATADESIGN: A PEDAGOGICAL EXPERIMENT ON DESIGN OF EXCEPTION, ABSURD ARTIFACTS AND IMAGINARY INTERFACES
Isabella Brundalise, Henrique Eirá .......................... 339

DESIGNING FASHION FICTIONS: SPECULATIVE SCENARIOS FOR SUSTAINABLE FASHION WORLDS
Amy Twigger Holroyd .......................... 341

BLACK PANTHER’S UTOPIAN PROJECT: THE INNOVATIVE POTENTIAL OF FICTION AND SPECULATION BY NON-ARCHITECTS
Fiona Kenney, Vaissnavi Shukl .......................... 352

RETHINKING THE PLACE OF NARRATIVES IN DESIGN FICTION: A GAP BETWEEN POLICIES AND THE REAL APPROACH TO VICTIMS
Mónica Paola Peña Zambrano .......................... 354

DESIGN FICTION: LATERAL THINKING FOR SOCIAL DESIGN
David Hernández Falagán .......................... 363

DESIGNING GOVERNANCE IN THE FOURTH INDUSTRIAL REVOLUTION
Paula Riveros Tovar .......................... 372

RE-CONTEXTUALISING THE DESIGN PROCESS IN FASHION EDUCATION
Shalini Gupta, Varun Goel .......................... 381

NATIONAL MEMORY AND DESIGN OPPORTUNITIES: PATTERN DESIGN OF TRADITIONAL CHINESE FESTIVAL COSTUMES
Kunyuan Li, Hui’e Liang .......................... 393

TECHNOLOGIES FOR INTROSPECTION: SPECULATIONS ABOUT THE RELATIONSHIP BETWEEN SUBJECT, PERCEPTION AND TECHNOLOGY
Laura Catalina Junco Gómez .......................... 406

PROVOCATIVE PLAYGROUND: CO-DESIGN OF URBAN SPACES IN CONTEXTS OF HIGH DEGREE OF MARGINALIZATION
Marina Maya, Carlos Cobrero, Gustavo Peñaloza .......................... 417

POSTHUMANWEAR EXPLORING POSTHUMAN IDENTITIES AND AESTHETICS THROUGH DESIGN FICTION
Juan Carlos Guevara Verjel .......................... 428

RE-THINKING THE DESIGN ROLE: EXPERIMENTING NEW NARRATIVE & RHETORIC DESIGN METHODS
Valeria María Jannili, Antonella Valeria Penati, Alessandra Spagnoli .......................... 438

THE EXTENDED PRAXIS OF DESIGN: TOWARDS A CHARACTERIZATION OF THE ADVANCED DESIGN CULTURES
Roberto Iniguez Flores, Ruth M. León Morán, Flaviano Celaschi, Elena María Formia .......................... 449
WALKING IN THE AGE OF ANTHROPOCENE: AN INTERDISCIPLINARY LEARNING EXPERIMENT FOR A SUSTAINABLE FUTURE
Fan Peng .......................................................... 461

TRANSDISCIPLINARY COLLABORATION MEDIATED BY DESIGN: AN INITIATIVE FOR RURAL ADAPTATION TO CLIMATE CHANGE
Luis Beltran-Forero, Fabio Andrés Telléz ........................................ 472

TECHNO-AESTHETIC SPACES OF FICTION
Karen Aune ............................................................ 486

BIOFORM – LEARNING AT THE INTERSECTION OF SCIENCE AND DESIGN
Damian Palín, Sam Russell, Ferdinand F. E. Kohle, Enda O’Dowd, S. Yeşim Tunali Flynn ........................................ 498

BIOFORM: AN APPROACH FROM BIOENGINEERING IN SEARCH FOR AN ECOLOGICAL EQUILIBRIUM
Lina Gisell Aranzales Rodríguez, Brilly Carolina Quimbayo Gutiérrez, Carolina Pérez Vélez ........................................ 579

SENSING NATURE: EXPERIENCE DESIGN FOR LEARNING THE INTERPLAY BETWEEN MATERIALS AND EMOTIONS
Sara Lucia Rueda Mejía .................................................. 589

PROTOTYPE OF A SELF-SUFFICIENT BIOFABRICATION PROTOCOL FOR REMOTE TERRITORIES
Anibol Fuentes Palacios, Carolina Pacheco Glen, Adriana Cabrera Galindez, Alejandro Weiss Munchmeyer, María José Besoaín Narvaez ........................................ 601

HISTORY MAY LEAD TO FUTURE: HOW CHINESE FIVE ELEMENTS THEORY HELP TO IMPROVE PRODUCTS’ EMOTIONAL DURABILITY
Ruimin Hao, Jiapei Zou .................................................... 500

BATRACHARIUM – AN IN SITU PARTICIPATORY CONSERVATION AND EDUCATION PROGRAMME FOR AMPHIBIANS
Gururaja Kotambylu Vasudeva ........................................ 511

EXPLORING THE BENEFITS OF NATURALLY COLORED COTTON FOR FUTURE DESIGN SOLUTIONS
Sharda Nautiyal, Sakshi Babbar Paul ........................................ 520

BUILDING A BIODESIGN CURRICULUM
Jennifer L. Wrightsmann, Jane Pirone ........................................ 532

SYMBIOTIC-BASED DESIGN: A NOVEL METHODOLOGICAL APPROACH TO DESIGN BASED ON COOPERATION AND INTEGRATION
Alejandro Durán Vargas, Lorena O’Ryan Cuevas ........................................ 554

TRANSFORMING AGRICULTURE THROUGH URBAN PRODUCTION METHODOLOGIES WITH THE SUPER POTATO
Elizabeth Jamie Dellheim, Stephen Enrique Brugue Coral, Laura Andrea Cabrera Villamizar, Pablo Llínas Tono ........................................ 568

BIODIVERSITY-DRIVEN DESIGN: THE CREATION OF A DIGITAL PUBLICATION How Their Knowledge Can Be Better Integrated
Jenifer L. Wightman, Jane Pirone ........................................ 579

COLLABORATION AS A FORM OF COUNTERCULTURE
Dickson Asu-Agyei, Finzi Edward Saidi, Jabi Absalom Makhubu ........................................ 589

SUSTAINABLE DESIGN AS ANTI-FASHION
Daniela Monasterios-Tan .................................................. 598

DESIGN AGAINST WAR: HOW CAN DESIGN SUPPORT THE EFFORT TO PREVENT CONFLICT, MITIGATE WAR DAMAGES AND PROMOTE A CULTURE OF CARE?
Massimo Bruno Randone, Irina Maria Suteu ........................................ 601

WALKING BACKWARDS INTO THE FUTURE: USING INDIGENOUS WISDOM WITHIN DESIGN
Karen Aune ............................................................ 436

A CONTEMPORARY URBAN HUMANISM: THE URBAN SPACE AS CULTURAL FRAMEWORK FOR PARTICIPATORY ARCHITECTURE, GRAFFITI IMAGE AND URBAN GENRES
Omar Campos Rivera .................................................. 615

THE CREATION OF A DIGITAL PUBLICATION ABOUT GENDER AND DIVERSITY FOR EARLY CHILDHOOD
Débora Palleiros Gonzalez .................................................. 627

COLLABORATION AS A FORM OF COUNTERCULTURE
Dickson Asu-Agyei, Finzi Edward Saidi, Jabi Absalom Makhubu ........................................ 639

SUSTAINABLE DESIGN AS ANTI-FASHION
Daniela Monasterios-Tan .................................................. 598

DESIGN AGAINST WAR: HOW CAN DESIGN SUPPORT THE EFFORT TO PREVENT CONFLICT, MITIGATE WAR DAMAGES AND PROMOTE A CULTURE OF CARE?
Massimo Bruno Randone, Irina Maria Suteu ........................................ 601

HAND-MAKING AS THE INTERPLAY OF THE PERSONAL AND COLLECTIVE IN DESIGNING TRANSITIONS
Marysol Ortega Pallanex .................................................. 675

BOGOTA DUST AND PAPER CITY: A CRITICAL DESIGN EXERCISE THAT EXPLORES CORRUPTION IN TOWN
Viviana Alejandra Moya Arenas ........................................ 686

BIO-CURRENCIES: AN ALTERNATIVE TO PAYMENTS FOR ENVIRONMENTAL SERVICES (PES)
Santiago De Francisco Vela, Miguel Navarro-Santist, Maria Belén Castellanos Ramirez, Leidy Lorena Rodríguez Pinto, Catalina Ramirez Diaz ........................................ 698

SOCially ENGAGED DESIGN AND ART EDUCATION PRACTICES FOR REINVENTING TERRITORIES
Andrea Menezes De Bernardi, Edson José Carpintero Rezende, Juliana Rocha Franco .................................................. 700

THE TRANSFORMED SOCIAL FUNCTION OF RELIGIOUS ARCHITECTURE – TAKE “ZHUANGFANG” AS AN EXAMPLE
Jaye Chen, Qiang Wang, Lu Ding, Stephen R. Drown, Anran Feng .................................................. 711

APPLYING HUMAN-CENTERED DESIGN AND BEHAVIORAL ECONOMICS TO DRIVE UPTAKE OF PREP AMONG SEX WORKERS
Juanita Rodriguez Barón, Dean Johnson .................................................. 722

CLASSROOM AS RESISTANCE: MICRO-STRATEGIES FOR DESIGN EDUCATION
Gaia Scagnetti, Nida Abdullah .................................................. 735

FROM SELF-CARE TO WE-CARE: PRACTICAL TOOLS FOR FIGHTING ORGANIZATIONAL BURNOUT
Jenny Liu, Hannah Roodman .................................................. 746

ABRACEMOS LO NUESTRO: ENCOURAGING NEW IDEATION WITH TRADITIONAL PARAGUAYAN TEXTILES
Andrea Gonzalez Esteche, Andrea Gonzalez Esteche, Melissa Dawson .................................................. 750

PHOTO-ETHNOGRAPHY AND POLITICAL ENGAGEMENT: STUDYING PERFORMATIVE SUBVERSIONS OF PUBLIC SPACE
Pablo Hermansen, Roberto Fernández .................................................. 760
The focus of the track is the articulation between world-making exercises and design methods that reformulate the identity of design. New domains have emerged that include Critical Design, Speculative Design, Design Storytelling. These methods and practices trigger creative, disruptive and conscious architectural and design practices by applying technological developments combined with ideation and speculation. The result generates spontaneous designs that are both, efficient and imaginative. Can the relationship between design, fiction, architecture and games redefine the role of each specific field? Can the intersection of these fields provoke a revision of the rhetorical innovation? Can these design processes lead to novelty without repeating innovation as a dry formula?

TRACK CHAIRS
JAVIER RICARDO MEJÍA
JUAN MANUEL MEJÍA
Corneliu Dinu Tudor Bodiciu
LASALLE College of the Arts.
dinu.bodiciu@lasalle.edu.sg
DESIGN FICTION: LATERAL THINKING FOR SOCIAL DESIGN

This article aims to show the results of a product design workshop that has used Speculative Fiction as a creative tool. The experience has been carried out with students of the university degree at Escola Massana in Barcelona.

The construction of fictions has been considered as a catalyst tool for a creative journey originated from a given stimulus. The proposal of alternative futures has allowed the questioning of political, economic, ecological or cultural values associated with different parameters. The method has facilitated the creative capacity to produce critical thinking through works and eloquent objects of those futures.

Throughout the course, discourses have been developed that facilitate the approach to a critical and sensitive vision of creative production. With this approach we have achieved the construction of an inclusive and universal story that develops alternative futures where all voices feel represented. Likewise, the communicative capacity for the construction of the story itself has been strengthened, exploring languages and diffusion channels that are not usual. Finally, the method demonstrates a lateral approach to the creative fact that enhances the social values of the products achieved.

Design Fiction demonstrates its capacity as a lateral thinking tool for a universal design.

**Keywords:** design fiction, future design, storytelling, universal design, lateral thinking.
INTRODUCTION
The aim of this paper is to show the experience of the project workshop carried out with students of the Art and Design university degree at Escola Massana in Barcelona during the 2018-2019 academic year. Thanks to the interdisciplinary context that this center provides, in which the construction or spatial or objectual definition as an intellectual artefact has not been exclusively considered, the methodological approach has made it possible to visualize the values of speculative fiction as a creative tool.

The Speculative Design (Auger, 2012) is often cataloged as a branch of what we know as Critic Design (Malpass, 2017). It is a type of creative approach that does not intend to conceive the production of space or objects within the conventions of the market, but rather commits to creations that mobilize the debate around fundamental issues that deserve our concern and commitment. To do so, some strategies are used that go beyond the limits of design and that propose a narrative dialogue with reality (Yelavich & Adams, 2014).

The pedagogical foundations of Design Fiction (Bleecker, 2009) are found in the questioning of the role of objects and spaces in our daily lives, regardless of sociocultural conditions. In particular, the intention is to focus attention on the capacity to articulate groundbreaking messages regarding the dominant narratives of the future, often loaded with social injustices that are not visible and focused on the privileges of the Western world. For this, in the development of creative exercises based on this approach, all the implications and ethical, political, economic, ecological or social consequences of speculative creations are always taken into consideration.

METHODOLOGY: DESIGN FICTION AS LATERAL THINKING

The development of a large part of the creative techniques that we use today with assiduity can be traced back to the 1950s and 1960s as instruments linked to innovation in different areas of production —fundamentally in a moment of effervescence of the commercial expansion of the West. It is not by chance that the first approximations to what we know today as Design Thinking originate in the writings of the inventor and psychologist William J. J. Gordon (Gordon, 1961) or the publicist Alex Faickney Osborn (Osborn, 1963). Once the perspective of Human-Centered Design was incorporated into the service design from the 1980s (Schön, 1983), it was a question of time that international university centers such as Delft University (Cross, Dorst & Roozenburg, 1992) or Stanford University (Plattner, Meinel & Leifer, 2011) pay attention to these creative methods through symposiums and educational programs. In this context of exploration — partially productionist— of the design processes, methodological alternatives are located that propose a view that provides two fundamental nuances for the creative proposal: social empathy and narration as a critical aspect.

From this perspective, lateral thinking is a problem solving procedure that consists mainly of avoiding traditional methods (vertical) in the prefiguration of solutions. It is usual to cite the pioneering work of Edward de Bono when proposing this type of alternative methodologies (De Bono, 1967). His work was based on the incorporation of useful thinking tools to draw new itineraries in the creative processes developed collectively. His most systematic contribution in this direction was the definition of six thought mechanisms metaphorically transfigured into six thinking hats (De Bono, 1985).

Within the catalog of alternatives that de Bono offers, there are two that prefigure the methodological objectives of Design Fiction, and that have been developed in the experience described in this article. On the one hand, the Yellow Hat, cataloged as the "speculative-positive", from which the technique of Constructive Thinking (What if...?) Is developed as a model of approaching reality from an alternative future that supposes the best possible scenario. On the other hand, the Green Hat, directly associated with Creative Thinking (Yes, and...) as a means to propose alternative situations that have the capacity to both provoke and facilitate empathy.

The use of these thinking techniques prefigures a counterfactual approach to design, in the same way that its use can be recognized in the area of philosophy by authors such as Saul Kripke (Kripke, 1975) or in the field of historical studies by Niall Ferguson (Ferguson, 2011), among others. In all cases, the capacity of the construction of fictions is demonstrated as a highly suggestive tool to understand characteristics of reality and establish a narrative dialogue with it.

DEVELOPMENT: SPECULATIVE DESIGN IN THE CLASSROOM

The objective of this method of work at school is to develop the creative capacity to produce critical thinking through works and eloquent objects of possible futures. That is why different phases are proposed, which lead the exercises in a similar way to other approaches of lateral thinking. In a first phase, a future
world is virtually constructed, between probable and plausible, which leads to a holistic thinking of the political, economic or technological system (Candy, 2010). Next, the characters that inhabit it are defined, their needs are evaluated and the scenarios and objects that are part of their everyday life are worked on. Here collective empathy is developed with the needs and challenges of this society, identifying the challenges that can be the object of reflection. Once a creative challenge has been selected with which to focus on those challenges, spaces and objects that reflect future needs are designed and tested, building a storytelling that makes both the problem and the focused challenge visible. The value of the result is concentrated in the diegetic and eloquent capacity of the proposals projected as critical tools of dystopian futures in relation to collective expectations.

Throughout the course, instruments from some of the disciplines encompassed within the “critical design” environment [speculative design, design fiction, future design] are provided with the aim of facilitating the approach to a critical and sensitive vision of creative production. In addition to the references already mentioned, the theoretical bases on which both the methodological processes and the intellectual conception of the pedagogical model are formulated are amply gathered in the bibliographical references contributed by Anthony Dunne (Dunne, 2008) and Fiona Raby (Dunne & Raby, 2013). In turn, the architectures of the utopian and critical thinking of the second half of the last century are in turn indispensable references for the speculative approach. In this sense, the reflections collected by authors such as Neil Spiller (Spiller, 2007), Felicity Scott (Scott, 2010), Lucas Feireiss (Feireiss & Klanten, 2009) or Geoff Manaugh ( Manaugh, 2009) are worthy of mention. And, of course, so are the experiences and proposals of collectives and artists such as Archigram (Cook, 1999), Archizoom, Superstudio (Brugellis, Pettena & Salvadore, 2017), Haus-Rucker-Co, Ant Farm (Scott, 2008), Coop Himmelblau, or Walter Pichler, among others.

**STUDY CASES: DIEGETIC NARRATIVES**

From the definition of the teaching contents in the Massana School, the speculation and the construction of fictions are considered as catalyzing tools of a creative journey originated from a given stimulus. Such stimuli may vary depending on conditions that approximate the student laterally to known realities.

During the 2018-2019 academic year, the proposed topics have been three: first, the singular character of the temporary constructions and spaces; second, the playful value of the design; finally, the phenomenological implication of the human body in the perception of space has been considered as the third possible catalyst. With these topics as a context, we intend to achieve the proposition of alternative futures in which political, economic, ecological or cultural values are questioned based on different critical parameters that are addressed in the classroom in work groups. To illustrate the experience in this paper we have made a selection of three examples that show different approaches to each of the topics.

The first example is the piece “Oxygen Pump”, designed by students Marc Haefner, Sara García and Oriol Mases. It is a device defined as a serial piece of urban furniture whose objective is to provide oxygen to citizens through self-consumption masks. It is posed in a future context in which oxygen levels in the atmosphere have decreased significantly due to pollution. The distribution of the pumps is proposed as temporary installations developed in public spaces through groups that promote the collective consumption of oxygen. In this way, the temporary occupation of public space and relations between people are strengthened, damaged by the lack of human activity beyond the interior of their pressurized and oxygenated homes.

In this case the fiction eloquently demonstrates a double circumstance: on the one hand the obvious look towards the probable deterioration of the atmospheric conditions of the planet. On the other, “Oxygen Pump” shows the concern for human relations, moving the story towards the need to guarantee a collective conscience in the face of a global problem. The temporary construction of oxygen jets catalyses the recovery of social relations.

The second example is the piece “Backpack”, designed by the students Alba Abeláin, Teresa Casas, Anna Moreno and Wanda Cuellar. In a similar context to the previous one, the authors describe a future world in which the deterioration of the planet is causing the disappearance of a large part of the vegetal mass. Faced with the collective vision of the previous project, “Backpack” approaches the solution in an individualistic way, proposing a small transportable garden as a backpack that becomes an individual oxygen generator.

The fiction is showing here several unique circumstances: the atmospheric situation, the individualization of the world in search of solutions and, furthermore, the conversion of these solutions into a ludic-symbolic artefact. In a way, the backpacks show customized micro-landscapes converted into an identity image of the people who transport them. It shows a world that combines ethics and aesthetics in a very disturbing way. The ludic value of the piece catalyzes a whole battery of interpretations.

The third example is called “Blinder” and has been prepared by the students Marta Ferret, Maria Bienvenido, Laura Palomo...
and Marianna Bellmunt. In this case, a future determined by electronic and digital means of communication is emerging, which has caused problems of visual perception in a large part of the population. A possible intolerance of the retina to digital screens and interfaces has degenerated into a high percentage of blindness among the population. “Blinder” is defined as a digital application that facilitates digital communication between blind people through a helmet-scanner and virtual reality gloves. The objective is to facilitate the tactile perception of people through digital devices.

The more elaborate fiction proposed by “Blinder” questions both the physical risks of digital interfaces and the social risks of remote communication. Under a proposal that apparently universalizes and makes digital communications accessible, an acid look is perceived towards the perversions of the lack of human contact. Here, the value of the corporeal has catalysed a somewhat disturbing proposal.

**Figure 1.** Oxygen Pump. Marc Haefner, Sara García and Oriol Massa. Spain, 2018.

**Figure 2.** Backpack. Alba Abellán, Teresa Casas, Anna Moreno and Wanda Cuellar. Spain, 2018.

**Figure 3.** Marta Ferret, María Bienvenida, Laura Palomo and Marianna Bellmunt. Spain, 2019.

**FINDINGS: LATERAL THINKING FOR SOCIAL DESIGN**

Among the case studies collected here we can recognize a series of characteristics that certify the proximity between the diegetic narratives and other critical design forms. In particular we can identify some values of design fiction.

- **Ability to visualize global and planetary problems.**
  During the construction phase of alternative worlds, the point of view tends to be located in reproducible situations in different parts of the world, fleeing from local situations with characteristics that are difficult to extrapolate. Therefore, global construction tends to concentrate on the definition of political and economic structures outside existing ones. The productive economy, the technological development and the environmental implications of the model are the triangle on which all the arguments tend to be articulated. Both the economic models and the environmental repercussions are recognized in the projects as key situations with enormous influence for the construction of those futures. The environmental impact of economic and technological development tends to become a trigger factor for the social structures that are built in those futures.

- **Ability to visualize problems of a social and local nature.**
  In the same way, once defined a situation in which global problems have been made visible, the method of thinking about futures leads the students to the construction of characters that inhabit and survive in those futures. In this approach, the empathic capacity of the participants in the workshops is decisive to make visible dystopian situations perceptible at local level and motivated fundamentally by the particular characteristics of the global approach. In this way, the emergence of discriminatory elements, the generation of situations of non-universal accessibility, the existence of non-inclusive structures, etc. becomes visible; in short, all kinds of imbalances that become the basis of the challenges they intend to correct with their projects. The fact is that the projects are not aimed at correcting global problems, but rather seek to minimize their impact on social and local levels.

- **Ability to draw narrative bridges with reality.**
  The great value of speculative proposals is their ability to approach an alternative reality without altering the fundamental principles of current reality. The variations that are intuited in the contexts of the commented proposals are subtle enough to establish links of empathy with any observer, without the need for the observer to have a deep knowledge of those contexts. In this way, the bridges that are drawn...
between reality and fiction are solid connections. The viewer is transferred to an alternative reality through the connection with objects, installations or social habits that are completely useful in fiction, and perfectly eloquent in reality. The subtle distance between these alternatives becomes the appropriate framework for the construction of the narrative, which can include all kinds of media: physical artifacts, digital media, hybrid performatives, etc.

The mechanisms of lateral thinking that are used in the processes of fiction design (“What if...” or “Yes and...” techniques) greatly facilitate the projection of the personal self over the fictitious situation created. The achievement of a framework of empathy — problem of Design Thinking — that facilitates the interaction with the future, allows in turn to shift the gaze from the global to the local aspects and challenges of a more social nature. In turn, the products defined from this positioning become more suggestive and diegetic pieces. From a narrative point of view, the approach of the observer from the personalized product facilitates empathy with the difficulties that could be faced in that future, which leads them, in a deeper analysis, to a holistic understanding of the challenges of that future.

CONCLUSION

As a final summary of the experience put into practice, it is shown that narrative fictions converted into diegetic designs facilitate the approach to a critical and sensitive vision of one’s creative production. Both these examples and the rest of the projects developed during the workshop pay attention to environmental and ecological risks (global sphere), as well as to the risks of digitalization, the growth of individualism or the post-humanization of society (local sphere).

With this approach we have achieved the construction of inclusive and universal stories that make visible alternative futures where all voices feel represented. Also, in the examples can be seen how the communication capacity for the construction of the implicit story has been enhanced, exploring languages and non-habitual diffusion channels that hybridize different disciplines. Finally, the method demonstrates a lateral approach to the creative fact that enhances the social values of the results achieved. In short, fiction design demonstrates its capacity as a lateral thinking tool for a universal design.

BIBLIOGRAPHY


