VOLUME 2.

Driving Design

Collective approaches
enriching design principles

Edited by Distributed
Design Platform

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Introduction

Jessica Guy, Distributed Design Platform lead at Fab Lab Barcelona | IAAC

In a world characterized by rapid technological advancements, shifting global landscapes, and the urgent need for alternative, meaningful, regenerative solutions, design plays a pivotal role in shaping our future. "Driving Design," presented by the Distributed Design Platform, embarks on a journey through the transformative power of design in the contemporary era.

This book is not merely a collection of theories and principles; it is a dynamic exploration of design's capacity to drive innovation, foster inclusivity, and navigate the complexities of our interconnected world. Through the lens of the Distributed Design Platform, we delve into the multifaceted aspects of design that extend far beyond the creation of physical artifacts. As our societies evolve, so must our approach to design. We advocate for a paradigm shift, challenging conventional norms and embracing a postcolonial and post-anthropocene perspective. We navigate the intricacies of design education, emphasizing the importance of breaking free from outdated systems to empower a new generation of designers capable of shaping policy-making processes.

This book is a testament to the potential of design to address the pressing challenges of our time. Join us as we venture into the realms of collaborative experimentation, where designers become agents of change, translating methods across different contexts and sectors. We invite you to explore an alternative present that is not confined to the status quo, but seing design as a driving force behind systemic transformation.

Enjoy a glimpse into the field of the ever-evolving field of Distributed Design.

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Acción Veredas | Paths-Action

Integrating craftspersonship heritage and maker culture through a learning experience in Higher Education in Design

Project team
Arianna Mª Fanio González;
Carlos Jiménez Martínez;
Jorge de la Torre Cantero

Organization
Universidad de La Laguna

Location
San Cristóbal de La Laguna, Canary Islands, Spain - Europe

Project type
Learning experience through product

PROJECT DESCRIPTION

Acción Veredas (Paths-Action) focuses on the revaluation of the semi-industrial craft of hydraulic tiles through a maker culture approach. This heritage is present in numerous buildings from the beginning of the 20th century and the craftspersonship is currently extinct in the Canary Islands. In this region, a social organisation is rescuing the knowledge of hydraulic tiles by combining it with a Fab Lab approach, which led our research group to start a collaboration to introduce it into the classroom.

We established an initial workshop based on the maker principles, Understood as the premises of democratisation of knowledge and digital design and fabrication technologies [1,2,3,4,5,6], and carried out for university Design students. Participants are guided to take on the role of makers of new tiles, engaging in a collaborative project that ranges from design conception to the physical creation of a hydraulic tile carpet. A hybrid construction technique is used to produce the tiles in a non-traditional environment, combining traditional knowledge with tools designed and manufactured using digital fabrication technologies. The workshop is also characterised by the integration of playful dynamics that encourage participation, engagement and collective dialogue, as well as project documentation and the creation of resources under Creative Commons licences. Throughout the process, the classroom is also connected to the territory through local institutions and the situated urban heritage. As a result, students become aware of the heritage, acquire collaborative, open design and Fab Lab skills and contribute to the decentralised documentation and dissemination of content about this craft.

CONTEXT AND HISTORY

Acción Veredas is part of an ongoing doctoral thesis, at the beginning of which, a mapping of the maker labs in the Canary Islands was carried out, with a particular focus on those that have emerged from entities with a social base. Among the cases identified is the NGO Aldeas Infantiles SOS, which develops a wide range of socio-environmental projects. In 2013, this organisation began a traditional

IMAGE 1. *Samples of hydraulic tiles and frames belonging to the NGO SOS Children's Villages (2021, SOS Children's Villages in Tenerife, Arianna Fanio, CC BY-NC-SA)*

hydraulic tile workshop with the aim of transmitting this craft and making it accessible to new generations. Although the craft of making these pieces has disappeared from the Canary Islands, it constitutes a living cultural heritage that can be found in many with buildings from the early 20th century. Over the years, this workshop has experimented with the creation of new moulds using digital design and manufacturing technologies, an aspect that caught our attention during our research [7].
In 2021, as part of the thesis, there was the opportunity to learn the process of making tiles in collaboration with Aldeas Infantiles SOS. This experience, combined with the declining heritage value of the tiles and the possibility of addressing it in the classroom through maker culture, marked the beginning of the Acción Veredas project.

WHAT IS THE NEED IT TACKLES?

The project aims to highlight the artistic, historical and artisanal value of the declining heritage of hydraulic tiles in the Canary Islands, exploring its past narrative and proposing future perspectives. Through the workshop design, there is an opportunity to promote student-centred learning in university classrooms, connecting students to the real world and providing spaces for reflection, experimentation and action linked to the territory. In this context, a local reality is presented, characterised by the disappearance of the craft, the prominent presence of this type of pavement in urban areas, the lack of documentation on the subject and the absence of local actors working on it.

The workshop allows to promote co-responsibility with this heritage through a process that establishes links between the participant and the object; to promote 'doing it together' over 'doing it yourself', with an educational approach inspired by maker culture; and to offer the acquisition of manual, digital and social skills. It also explores, through its transformation into a neocraft, the generation of open digital resources for decentralised replicability, documentation and the creation

of reciprocal workflows with related communities. In short, it combines heritage conservation with educational community participation and the promotion of new forms of creation.

WHAT WAS THE DEVELOPMENT PROCESS OF THE PROJECT LIKE?

The aim of the workshop was to provide access to both the design and manufacture of hydraulic tiles, meeting two main technical requirements: a construction system that would allow tiles to be made in a space without the traditional tools of the craft, and a method of making moulds that would be easy to replicate and produce. To achieve this, we embarked on a process of ethnographic research and specific bibliographic review, which culminated in the combination of traditional knowledge and innovations developed by the NGO Aldeas Infantiles SOS in Tenerife, with instrumental contributions of the Anda project by Estudio Valija in Argentina [8]. This synergy of knowledge was transferred to the Fab Lab ULL, where we carried out experiments and evaluations to verify its viability. During this phase, we built tools both manually and digitally, created video tutorials for the creation of three-dimensional moulds, and produced tiles of sufficient quality for the educational purposes they would serve in the classroom [9]. In the experimental process, we also introduced our own contributions in terms of spatial dimensions and workflows in order to enhance the practical dynamics in the classroom, as well as the collective management of space and resources.

Subsequently, the learning experience was put into practice with a group of university students (n=17) from the 3rd and 4th years of the Design Degree at the University of La Laguna, in the subject of Ecodesign, during the academic year 2021/22.

IMAGE 2. *Collaboration between colleagues during the creation of a tile (2021, Faculty of Fine Arts of the University of La Laguna, Arianna Fanio, CC BY-NC-SA)*

WHAT IMPACT DOES YOUR PROJECT CURRENTLY HAVE?

The first workshop has made it possible to gather feedback from participants, evaluate the content and dynamics of the workshop, establish local links and begin to explore the heritage of hydraulic tiles in the Canary Islands.
The learning methodology used facilitated the design and production of tiles without the need for traditional tools in a conventional classroom setting. According to pre- and post-workshop surveys, participants improved their technical and social skills and discovered new local stakeholders. Resources were also created in both digital and physical forms conceiving: eight tile designs (two-dimensional files and three-dimensional models for 3D printing), video tutorials, a visual collection of local tile examples on Pinterest [10], an explanatory audiovisual about the workshop for dissemination purposes [11], 3D printing tools and the hydraulic tiles themselves.

As a further result, the project was selected for the 'Jóvenes Talentos del Diseño Iberoamericano' exhibition in 2023 [12].

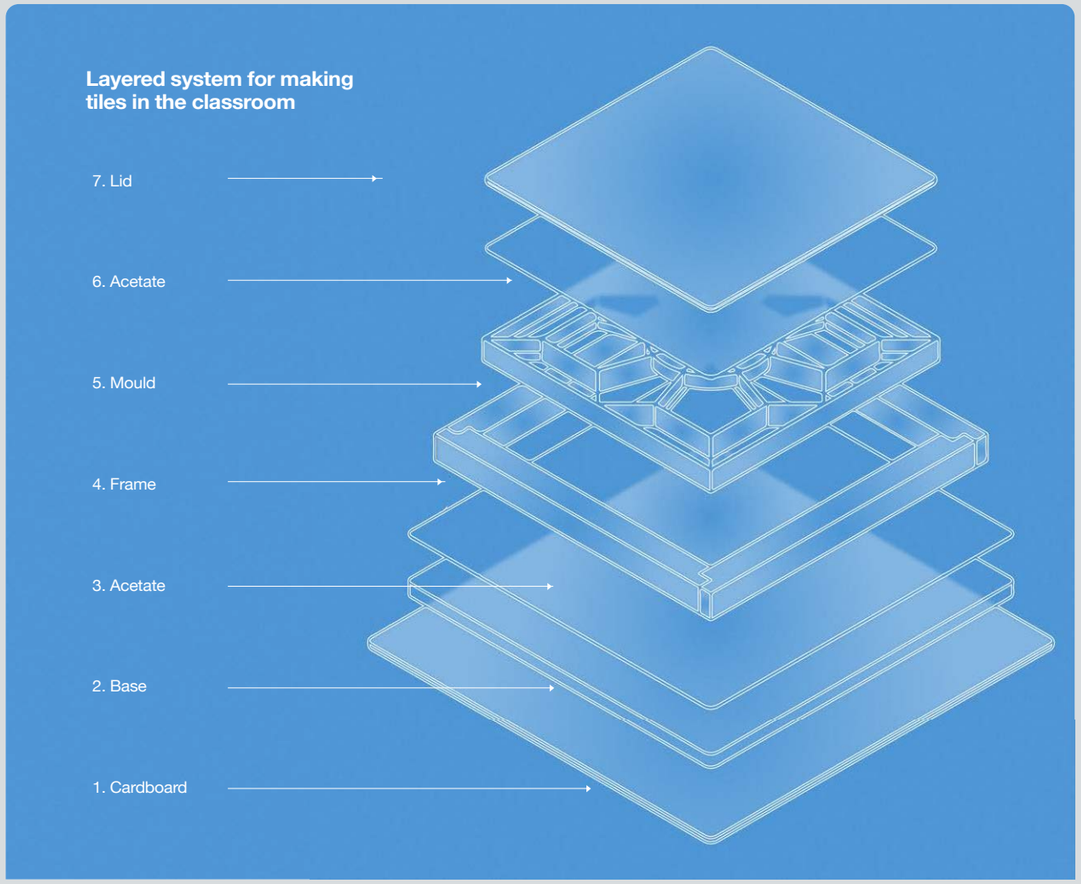

IMAGE 3. *Layered system for making tiles in the classroom (2021, Fab Lab ULL, Jorge de la Torre, CC BY-NC-SA)*

WHAT IS THE GLOBAL-LOCAL RELATIONSHIP OF THE PROJECT?

The project focuses on contemporary issues, emphasising innovation in craftspersonship and the revitalisation of traditional techniques in a digitalised environment. Focusing on a widespread heritage, but with a particular emphasis on the Canary Islands, it aims to promote collaboration between local actors and learning, while developing digital resources for decentralised reproduction and dissemination. In this way, the initiative hopes to act as a bridge between the local and the global, creating significant experiences in the territory that generate resources accessible worldwide. This will allow people from different regions who are aware of the disappearance of this heritage to access, learn and possibly adapt these methods to their own local contexts.

WHY IS ACCIÓN VEREDAS DISTRIBUTED DESIGN?

We have begun to build an educational ecosystem that connects students with the real situation of a heritage in the territory, alongside other actors and a way of working that focuses on collaboration and the digital. Progress is documented and dialogue is encouraged to promote cohesion in the collective project proposed in the classroom. The sessions are designed to be dynamic, allowing for the creation, sharing and testing of proposed solutions. The resources generated will be openly distributed so that the experience and knowledge gained can be shared and adapted in different contexts.

In terms of regeneration, the project aims to recover the memory of craftspersonship in the region by understanding the past, listening to the present and proposing actions for its revaluation. In this way, its research as neo-craftspersonship also integrates methods that can be reproduced globally, while working with local resources and communities. Although the project still has challenges to overcome in order to achieve its objectives, it is based on a maker culture approach, based on doing together, promoting tangible and testable making, as well as sharing, providing and acquiring knowledge and resources to change the current realities of the heritage addressed.

IF YOU COULD HAVE DINNER WITH ANYONE (HUMXN, PLANT, FUNGI, OR OTHERWISE) LIVING OR DEAD, WHO WOULD YOU DINE WITH?

I would share a meal with my grandparents, all of them. It would be an opportunity to continue listening to them, to get to know each other better and to learn more about the realities of a world that is no longer the present one.

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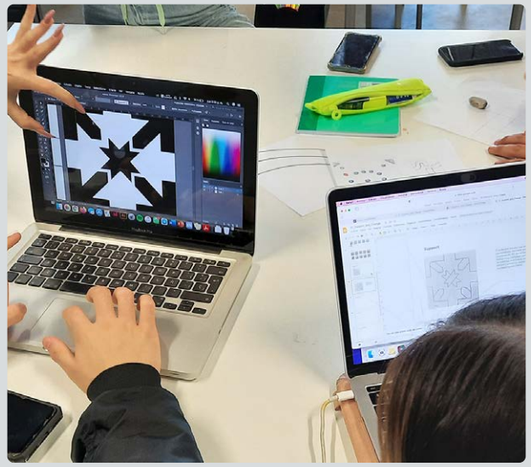

IMAGE 4. *First sketch of the hydraulic tile carpet project (2021, Faculty of Fine Arts of the University of La Laguna, Arianna Fanio, CC BY-NC-SA)*

IMAGE 5. *Vectorisation of design proposals during the workshop (2021, Faculty of Fine Arts of the University of La Laguna, Arianna Fanio, CC BY-NC-SA)*

IMAGE 6. *Creation of hydraulic tiles in the classroom. (2021, Faculty of Fine Arts of the University of La Laguna, Arianna Fanio, CC BY-NC-SA).*

IMAGE 7. *Checking the result of a tile during the manufacture (2021, Faculty of Fine Arts of the University of La Laguna, Arianna Fanio, CC BY-NC-SA)*

IMAGE 8. *CThe final tangible result of the collaborative project (2022, Faculty of Fine Arts of the University of La Laguna, Arianna Fanio, CC BY-NC-SA)*

References

Chapter 01

Commoning approaches to combat the scarcity myth: Designing with abundance

Interconnected Wave

pp. 12 *Federica Mandelli, Line Ulrika Christiansen*

1. Design thinking expanded the idea of “design” and turned the designer into a "goddess of answers"... although the intentions may be good, it has been shown that design thinking falls short in the execution and aftermath of an innovation.

2. Today, it is no longer about 'doing things well', but about creating what people desire and need. The key is to involve people in the decision-making process, understand their behaviour and measure their interactions.

3. “There's nothing worse than the quick and dirty one-night stand of speculative participatory design that says, "We will help you think about the future and then we will f*** off..." - Matt Ward

Circular Design Journal for Makers

pp. 18 *Therese Balslev & Joanna Kowolik*

1. The Circular Design Journal for Makers is designed to enhance awareness and provide tangible strategies for circular design, particularly in the early stages of product development in makerspaces and fab labs.

Project Reflect

pp. 22 *Angela L. McKee-Brown*

1. Joy is a source of power for our communities — a way to connect us to one another in order to create a more just society.

2. When there is abundance (enough for oneself and enough to share), confidence (trust in the design), care (intentional support), and consistency (adaptability and durability), the result is an experience that is protected and spacious, ripe for the existence of joy.

3. By uplifting joy in design - and recognizing its ability to open portals to understanding what freedom, safety and ease mean for our communities- we hope to provide a tangible starting point for those who want to support meaningful systemic change but don't know where to begin.

Pola പോള

pp. 26 *Nanditha Nair*

1. Pola is a regenerative design method for transforming water hyacinth into bio-objects, illustrating the potential for invasive plants to be interpreted not as a nuisance but as a gift.

2. Collaborating with local NGOs, Fablabs, and women’s self-help groups, Pola integrates traditional craftspersonship and indigenous knowledge into its global sustainability narrative

3. Pola provides region-specific recipes and tools, facilitating independent production of biomaterials. The use of low-tech tools enables easy replication even in remote locations.

Creative Glass Serbia

pp. 32 *Hristina Mikić*

1. The essence of Creative Glass Serbia can be summarized in one slogan ‘From digitalization to revitalization’ where the development process was guided by the methodology of industrial forensics and incremental innovation in design.

2. The essence of the Creative Glass Serbia Initiative is the experimental glass Lab which operates as an open innovation platform and platform for democratisation of creative process. The Lab engages local communities with glassmaking tradition and creatives, designers and artists, helping them to discover sustainable and inclusive ways of living and eco-creative working with glass as a fully recyclable material.

3. Creative Glass Serbia is an initiative that connects glassmaking heritage heritage, creative industries, artist, designers and handmade glass production in Serbia and focuses on transformation of industrial glass heritage into an asset for sustainable and fair local development of the creative economy.

Bagaceira Project

pp. 38 *Julia Steketee*

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EXCERPT
1. Sugarcane is the world’s largest crop by production volume and after sugar or ethanol production, up to one-third of the plant’s mass remains as bagasse.

2. Bagaceira Project crafts objects that embody this transformative spirit and invites others to turn trash into treasures for the built environment.

3. "You are responsible for what you put into the world" - Victor Papanek24

Bubble Trouble

pp. 44 *Faezeh Mohammadi and Sara de Boer*

1. A shift towards low-tech, low-energy solutions is needed, challenging the belief that technological progress and sustainability are inseparable.

2. Communication is key! Designers need to tell compelling stories about their work to engage a broad audience and shift mindsets. Understanding who they're talking to and crafting tailored narratives is crucial.

3. By aligning designers with institutions, we can influence policies and practices, paving the way for a future where sustainability thrives.

Prefiguring Emergent Futures in Learning Practice

pp. 58 *Maria Dimitriou-Tsaknaki and Leo Stillinger*

1. By turning theoretical descriptions into lived experience, the summer school showed what the concrete practice of degrowth can look like.

2. The summer school taught what a de-automated learning process can feel like: risky and uncertain but also rich and exciting, filled with singular opportunities. In a world where full control appears less and less likely (if it were ever possible), the art of designing in organic, responsible, flexibly structured ways appears more important than ever.

3. The possibility of another world might just be connected to the future of the relationships we build.

Chapter 02

From prototypes to possibilities: Democratising design through learning

Fostering Learning Environments for the Future

pp. 66 *Amy Gowen*

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EXCERPT
1. Despite taking its form as a School, SoC stands apart from traditional educational structures in that its content and direction are not predetermined by a fixed program or curricula. Instead, they are shaped by the collective know-how, ways and workings, aspirations, and curiosity of its dedicated communities.

2. Within the SoC learning environments there are clear links between each of the above infrastructures, as rather than being standalone substrates, they work best when informing one another, as part of a networked infrastructure of togetherness.

3. Commons infrastructures are not only based on sharing and exchanging, for instance with resources and knowledge, but also on the acknowledgement of difference and conflict.

4. It is through the large scale, identifiable commoning activities, such as public workshops, cross-cultural collaborations, open-source documentation, publication contributions and ways and workings activations that the commons is seen within SoC.

Counter-Hegemonic Pedagogy within Dominant Design Education

pp. 74 *Chiara Del Gaudio*

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EXCERPT
1. Design Education emerges as a crucial arena for transformation, as its day-to-day activities consistently perpetuate harmful design practices.

2. How can we, therefore, incorporate non-hegemonic design approaches into present-day Design Education?

3. The absence of theoretical readings and the failure to connect theory and practice hindered the understanding of Design's potential for critical thinking and societal change.

4. It is the time dedicated to discussing the politics of Design that facilitated a deeper understanding of the nature and implications of design practice, encouraging the acceptance of new and diverse approaches.

Fab City Challenge: Driving Global Innovation through Local Impact

pp. 80 *Mitalee Parikh, Daan Sonnemans, Josefina Nano*

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EXCERPT
1. The co-creation and curation phase builds a significant foundation of the Fab City Challenge, empowering hosts with essential skills, resources and people to tackle complex challenges.

2. Documenting and disseminating intricate challenge processes and outcomes facilitates knowledge democratization, fostering collaboration, innovation, and collective learning.

3. [The Fab City Challenge] exemplifies collaborative problem-solving, blending local wisdom and global expertise to drive positive change and foster inclusive, sustainable futures.

Fostering Open and Distributed Design in Early Design Education

pp. 86 *André Rocha*

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EXCERPT
1. “The School of Education at IPL, housing Fablab Benfica and the Visual Arts and Technologies (AVT) BA program, has become a fertile ground for this educational evolution. The period from 2018 to 2023 marks a significant time in which the product design programs within this BA underwent a fundamental change in their approach to teaching product design. The program has embraced a more open and diverse framework, aligning with Distributed Design principles and moving beyond conventional design processes and goals primarily aligned with traditional industry goals.”

2. “The correlation between the maturity of the Distributed Design Platform and the improvement in the quality of student projects is particularly noteworthy. The enhanced participation of students in both local and global Distributed Design activities suggests a growing appreciation and application of Distributed Design principles. This increased engagement has led to more sophisticated project outcomes, signaling a successful assimilation of Distributed Design into the students' design thinking and processes.”

3. “The introduction of Distributed Design was observed to enrich the conventional understanding of product design, offering students a broader perspective that transcends traditional industry-focused approaches.”site/149944b8b2664636a239e6d1c9d71e14?v=e687830d86894a17a826d7f1d36a128c.

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Soft Circuits Toolkit

pp. 96 *Catharina M. van Riet, Shibo Zou, Johannes T.B. Overvelde, and Frank L.M. Delbressine*

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EXCERPT
1. The Soft Circuits Toolkit allows anyone to prototype fully soft circuits that work on air instead of electricity.

2. We hope that the toolkit will inspire users to dive further into design, engineering, and soft robotics more specifically.

3. Youth greatly enjoy building the circuits and learning from them. They can understand the concept of airflow and apply it to the circuits they are building.

4. One of the main goals of our project is to make it completely open source, so that anyone in the world can download the files and make their own toolkit, and even better, contribute their own designs to it.

Circular Cities Challenge

pp. 102 *Fab Lab Barcelona at the Institute for Advanced Architecture of Catalonia*

1. Barcelona, a hub of innovation, design, and knowledge, is gradually embracing regenerative and circular practices that promote resilience and prosperity for all.

2. Creative Talents collaboratively ideated and prototyped proposals using a combination of approaches and processes including digital fabrication, traditional crafts, electronics, and biomaterials.

3. ...the prototypes Talents developed serve as interactive and replicable examples of the circular economy that encourage industry, policy makers, and citizens to envision alternative responses to traditional waste challenges.

Africa Open Science & Hardware (Africa OSH)

pp. 110 *Frank Bentum*

1. Africa OSH is a grassroots movement that promotes open science and open hardware initiatives across the African continent.

2. Africa OSH is involved in initiatives that are dedicated to developing the capacity of individuals in open science and hardware.

3. Africa OSH seeks to create a collaborative ecosystem where individuals and communities can work together on open science projects.

Crafting Inspirational Spaces

pp. 114 *Julia Leirado, Santiago Fuentemilla, Xavier Domínguez*

1. Every student, classroom, educator, and learning community is unique. Learning spaces designs should be, too.

2. Classrooms and schools are places of creation, as creativity is inherent in children's nature. However, the materials and tools available to them from the age of 3, when they enter kindergarten, to 17-18 years old, vary very little, even though the tools themselves have the potential to become learning materials.

3. When adapting classroom space to make it more conducive to maker education and creativity, the digital fabrication technologies chosen should be the most accessible and affordable.

Manifesting Chimeras

pp. 128 *Mathilde Lasnier Guilloteau*

[1] Mathilde Lasnier Guilloteau. Fungi+Plastics = <3. Collaborative design for coliving in queer ecologies. MfA thesis. (Linnaeus University, 2022).

[2] Merlin Sheldrake. Entangled Life. How Fungi Make Our Worlds, Change Our Minds, and Shape Our Future. (London: Penguin Vintage, 2020).

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[5] Heather Davis. Plastic Matter. (London and Durham: Duke University Press, 2022).

[6] Tara Mehrabi. Queer Ecologies of Death in the Lab: Rethinking Waste, Decomposition and Death through a Queerfeminist Lens. (Australian Feminist Studies, 2020), 35:104, 138-154.

[7] Donna J.Haraway. Staying with the Trouble, Making Kin in the Chthlucene. (London and Durham: Duke University Press. 2016).

[8] Kathryn Yusoff.A Billion Black Anthropocenes or None. (Minneapolis: University of Minnesota Press, 2018).

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EXCERPT
1. A mycelial practice of design acknowledges its situatedness and the entanglements it is part of.

EXCERPT 2: What do fungi have to do with design? So much.

EXCERPT 3. Designing within queer ecologies means reconsidering hosting and caring through the prism of multispecies practices, which urges to step back from the front of the scene to deploy togetherness – and by doing so make space for fungi and for other creatures.

EXCERPT 4. Collaborative design thrives on the multitude, for it brings together different people, groups, entities, and creatures – all looking for something they have in common, how to reach a compromise, and how to make something together.

EXCERPT 5: The queer, the creature, the odd one is often considered other and antagonised when they have always already been there.

EXCERPT 6: As a designer, before even diving into the project, this also involves reconsidering how much I can actually (anthropo-)de-centre myself, and how willing I am to give up the boundaries of human exceptionalism and domination.

EXCERPT 7: Caring for your waste instead of feeding the cycle of displacement is possible when a relation of care is developed and adapted to daily life...

I Grew Tired of Radical Education

pp. 138 *Engy Mohsen in conversation with Mohamed Abdelkarim, Huda Zikry, Batool El Hennawy and Hussein El-Hajj*

[1] The Roznama Studio Program was designed and led by Mohamed Abdelkarim, Nour El Safoury and initially Ahmed Badry.

[2] Didem Yazici, Heba Farid and William Wells alongside Medrar for Contemporary Art—the art space organizing the annual competition and exhibition.

[3] Sara C. Motta. (2012). Nottingham Free School: Notes Toward a Systemization of Praxis. In: Robert H. Haworth Anarchist Pedagogies: Collective Actions, Theories, and Critical Reflections on Education. USA: PM Press. 145 - 161.

[4] All conversations in this text were recorded, and later on freely translated and edited for brevity and clarity.

[5] Engy Mohsen is an artist and curator currently based between Zürich and Cairo. She took part in various independent study programs, namely Roznama 6 - Studio Program (2018), MASS Alexandria's Independent Studio and Study Programme (2018/19), Artists for Artist's Masterclass: Radical Care (2020), and School of Commons (2022 - 2023). She is one of the co-founders of the artist group K-oh-llective.

[6] Mohamed Abdelkarim is an artist, performer, filmmaker, and researcher. He has a performance-oriented practice. He was one of the programmers of the first and second editions of the Roznama Studio Program. He received his MA in Arts in Public Spheres from édhéa /ecav, Switzerland (2016), and is currently a Ph.D. candidate at the Akademie der bildenden Künste in Vienna.

[7] Found on the Facebook page of StudioKhana for Contemporary Art, February 14, 2022.

[8] Huda Zikry is a visual artist and researcher interested in contemporary art history, art education, and translation. She joined Studio Khana for Contemporary Art and Cultural Development (2016). Since then, she has worked on designing and facilitating three editions of the annual Student Council program, and the culminating group exhibitions.

[9] As part of Another Roadmap for Art Education, the group consisted of Nour El Safoury, Hussein El-Hajj, Rana ElNemr, Andrea Thal, who focused on researching local histories of arts education and plotting alternatives.

[10] Batool El Hennawy is an artist and writer. She studied at the Faculty of Fine Arts, Helwan University. She worked at CILAS in Cairo and Alexandria (2015 - 2019). She has joined various art institutes and educational initiatives in Cairo, Alexandria, and Amman as a curriculum designer, artist, curator, consultant, and researcher.

[11] Hussein El-Hajj is an activist and researcher. He is the current coordinator of CILAS in Cairo and the founder/director of CILAS in Alexandria, where he is also teaching. Hussein has contributed to "Another Roadmap School", an international platform that provides open spaces for trans-regional exchange and learning in arts education as an engaged practice committed to social change.

EXCERPT
1. All I could remember was the amount of times I had to read the phrase 'Radical Education' in one of the texts... I wondered whether the repetition helped stress the meaning, or rather drowned it in mere redundancy.

2. I always asked myself radical in what way. I always asked myself what alternative to what.

3. I felt that by having these conversations, I would come closer to any answers. After all, these are all people that I shared personal learning experiences with.

4. I am tired because I have failed to come closer to understanding the paradoxical relationship between language and knowledge.

Acción Veredas | Paths-Action

pp. 142 *Arianna Mª Fanio González; Carlos Jiménez Martínez; Jorge de la Torre Cantero*

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[11] Acción Veredas. "Proceso de aprendizaje compartido en torno al diseño de una alfombra de baldosas hidráulicas" YouTube video. May 10, 2022. https://www.youtube.com/watch?v=0uExnmZ2utc.

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EXCERPT
1. The project aims to highlight the value of the declining heritage of hydraulic tiles in the Canary Islands.

2. We create a workshop that combines heritage conservation with educational community participation and the promotion of new forms of creation.

3. To act as a bridge between the local and the global, creating significant experiences in the territory that generate resources accessible worldwide.

Found Objects

pp. 148 *Jesse Howard, Marije Remigius, Iñigo Puerta Uranga and Paola Zanchetta*

1. ...an average of 30% of sheet material processed by CNC ends up as waste. For Fiction Factory, this means that they throw away an equivalent of 2,000 sheets of new material every year.

2. Collaboration has been the essential element driving the Found Objects project development from the very beginning.

3. We believe that what we treat as waste today could be seen as a resource, and systematically become a new raw material tomorrow.

4. Found Objects is a project that breeds new ways of working, thinking, and valuing circular techniques, in order to produce technologies locally, which if distributed, will have a global impact of change for good.

Chapter 03

Living with worlds: Ecologies of practice and kinship

Fouté-Difé

pp. 18 *Emma Bereau*

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[16] Laumuno, M.-H. (2011). Gwoka et politique en guadeloupe: 1960-2003 : 40 ans de construction du pays. Harmattan.

[17] drum player in Créole

[18] Marcin, F. (2016). Le gwoka à l'heure de l'Unesco: entre reconnaissance et interpénétration culturelle. In J. K. Dagnini (Ed.), Musiques noires: L'Histoire d'une résistance sonore (pp. 253-276). Camion blanc.

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[20] Laumuno, M.-H. (2011). Gwoka et politique en guadeloupe: 1960-2003 : 40 ans de construction du pays. Harmattan.

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[28] https://www.kariculture.net/mas-vyefo-invites-montserrat-5e/

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[37] https://www.voukoum.com/mas-a-konn

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[40] In terms of internal organisation, women with children are better represented on the Board of Directors and on certain committees, in particular the Economic committee, which is essentially run by women.

[41] Mulot, S. (2000). "Je suis la mère, je suis le père!" : L'énigme matrifocale. Relations familiales et rapports de sexe en Guadeloupe [Phd thesis, Ecole des Hautes Etudes en Sciences Sociales (EHESS)]. http://tel.archives-ouvertes.fr/tel-00266923

IMAGE
1. Monument of the drummer Marcel Lollia, known as "Vélo", in Pointe-à-Pitre, Guadeloupe (November 16, 2016. (https://commons.wikimedia.org/wiki/File:161116_Marcel_Lollia_Guadeloupe.jpg) Rennboot. CC-BY-SA 3.0)

2. Drum player, Paul Rastocle playing at an event (November 18, 2017. (https://commons.wikimedia.org/wiki/File:B%C3%A8l%C3%A8_Tradition_(3).jpg). Dalia Del Arte. CC-BY-SA 4.0 (https://commons.wikimedia.org/wiki/File:B%C3%A8l%C3%A8_Tradition_(3).jpg). Dalia Del Arte. CC-BY-SA 4.0)

3. Déboulé at Le Moule, Guadeloupe (February 10, 2019. (https://commons.wikimedia.org/wiki/File:Carnaval_Le_Moule_Guadeloupe_2019_01.jpg). CC-BY-SA 4.0)

4. Mas Vyéfo in the carnival in Basse-Terre, Guadeloupe (March 5, 2019. https://commons.wikimedia.org/wiki/File:Carnival_in_Basseterre,_Guadeloupe.jpg). Pkraemer. CC-BY-SA 4.0)

EXCERPT
1. When individuals grapple with an unclear understanding of their personal history or heritage, it becomes difficult to establish a sense of belonging.

2. Through the performances, costumes, and rituals of the carnival, the community engages in a continuous act of remembering, revisiting, and reinterpreting its history and identity.

3. ...to emphasize the importance of strong collective participation in this spontaneous carnival is to advocate self-affirmation of that same identity.

Fouté-Difé

pp. 18 *Emma Bereau*

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[2] https://thackara.com/about/publications/

[3] https://www.youtube.com/watch?v=JDd7J-CLIxg

[4] https://metareciclagem.github.io/

[5] https://bristol.ac.uk/

[6] https://coletivoneos.org/instituto-neos/

[7] https://fonte.wiki/id21

[8] https://fonte.wiki/

[9] https://tropixel.org

[10] https://en.wikipedia.org/wiki/Plant_litter

[11] https://web.archive.org/web/20221108232246/https://twitter.com/diem_25/status/1581960992069517312

[12] https://fonte.wiki/id21

IMAGE
3. Graphic documentation of Tropixel Semente by [Marina Nicolaiewsky](https://marinanica.wixsite.com/vida).

4. ID21 study. Report available [here](https://archive.org/details/ID21_0-5/) (PDF, Portuguese).

5. Sample of contents in fonte.wiki

EXCERPT
1. The way forward would be the complex and continued weaving of ultralocal initiatives that understand the conditions, culture, needs, and

dreams of their immediate contexts.

2. The idea of thinking about technology and culture as supporting the emergence and regeneration of life is not new... It is not about DNA conservation, but rather it's remixing with the present environment. The seed speaks of diversity and multiplicity, not repetition.

3. With semente, we take a different path... Our bet, on the other hand, is to always start observing and creating relationships, discovering who the community is in all its diversity of knowledge, aspirations, and levels of involvement – our dense and complex forest – to collectively build what we want to be together.

Fouté-Difé

pp. 158 *Emma Bereau*

[1]Angela Davis, Freedom is a Constant Struggle (F. Barat, Ed.). Haymarket Books.

[2] Ruha Benjamin, Race After Technology: Abolitionist Tools for the New Jim Crow (Polity Press, 2019), 40.

[3] Breny Mendoza, Decolonial Theories in Comparison Journal of World Philosophies 5 (Summer 2020): 44-45.

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[5] As decolonial queer feminism would argue. See Pedro Paulo Gomes Pereira, Reflecting on Decolonial Queer GLQ: A Journal of Lesbian and Gay Studies 25 (June, 2019), 403-429.

[6] Bell Hooks, All about Love : New Visions (William Morrow, 2000).

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[11] Sobonfu Some, The Spirit of Intimacy: Ancient African teachings in the ways of relationships (William Morrow, 1997), 84.

[12] The Latin origin of 'relate' is relātus, perfect passive participle of referō ("to carry back"). Systemic relating might then mean carry back from the past to present - present to past - from self to system level, and system level to self.

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[24] The Noble Quran, 41:53

EXCERPT
1. Ritual and ceremony serve as tools to locate the past, situate the present and shape the future. As we reflect on the practices of embedding futures with ritual, we come to the importance of manoeuvring through liminal spaces.

2. In beingness, we attend to our lives with care and attention, during times of great upheaval and during peaceful times.

3. Beingness, therefore, could be regarded as an act of sitting with the uncertainty that prevails in the Anthropocene, yet allows us to reckon with the magic within, in which new ethics of love allow us to walk the path of Earth- and Wisdomkeepership of our times.

os*tomy

pp. 182 *Nikolaus Potapow*

1. Recognising patients' great dependency on donations, as well as the impact current practices have on the environment meant a clear call to action to design a system for a market that has as of yet been neglected.

2. Holistic thinking brought up seaweed-based polymers as a resource that does not consume any arable land while having a positive impact on the oceanic climate during growth.

3. os*tomy is not only a safe and sustainable medical product for colostomy patients, but an accessible set of knowledge and tools that empower communities to help the ones in need.

. Putting os*tomy into practice also builds knowledge: as an open-source platform, communities might develop it further, adapt it to patients needs and share their knowledge amongst themselves.

Eat me eat me not

pp. 188 *Manuela Viezzer*

[1] Krupennikova, Katia (curator). 2019. Futures Without. HKU MA Fine Art Graduation 2019. Utrecht, NL: HKU Exposure.

[2] Viezzer, Manuela. 2019. ¨Seulement (pour) les Animots — Investigating the human / animal / food construct through an art practice that is also a research.¨ Master thesis diss., Hogeschool Voor de Kunsten Utrecht.

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EXCERPT
1. Eat Me Eat Me Not was developed with the aim to influence players, make them think about what is really going on when animals are exploited within intensive farming, and eventually stir their behaviour towards veganism.

2. Games can be powerful tools to involve players and inspire them to think in novel ways. They can also be designed with purposes other than entertainment, for example with the aim to raise people's awareness around certain topics and to encourage making certain desired choices in the real world.

3. `Making kin' encourages thinking beyond species-specific and is a reminder that all earthlings are kin, in the deepest sense.

4. Making kin is a global practice rooted in localised practices.

Intercommunal Collaborations

pp. 192 *Zeynep Uğur*

[1] Kothari, A., Escobar, A., Demaria, F., Acosta, A., & Salleh, A. 2019. Pluriverse: A Post-development Dictionary. India: Tulika Books, AuthorsUpFront.

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EXCERPT
1. Intercommunal Collaborations' role is providing a space for alternative visions rather than defining them.

2. Breaking the bubble of our current norms, the IC workshop provides the space to reflect upon our values and assumptions.

3. Intercommunal Collaborations is inherently rooted in the local context, providing space for a bottom-up worldviews to spark global change.

Disperse the Spectrum / Disperse the Spectres*

pp. 200 *Roc Albalat, Pau Artigas, Marc Padró, Marcel Pié and Daniel Pitarch*

[1] Marx, Karl, and Friedrich Engels. 1970 [1840-1846]. The German Ideology. New York: International Publishers

[2] Steyerl, Hito. 2023. "Mean images." New Left Review 140/141 (Mar/June): 82-97.

EXCERPT
1. Computer vision does not look at the world, it looks at images of the world. It is a new piece that fits into the tradition of the camera.

2. To shroud AI in secrecy is to mystify it, to prevent us from understanding that it is yet another twist in the logic of our society.

3. Generative tools can be interesting if we understand them as analysing training data, as a kind of distorted return.

Feminist Hardware: Making Printed Circuit Boards with Natural Clay

pp. 206 *Patricia J. Reis and Stefanie Wuschitz*

[1] Liboiron, Max. 2021. Pollution Is Colonialism. Durham: Duke University Press.

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[6] Mohanty, Chandra.2003. Feminism without Borders: Decolonizing Theory, Practicing Solidarity. Durham: Duke University Press.

[7] Discover Heinz's work here: https://www.heinzlackinger.at/

[8] Crawford, Kate. 2021. Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence. Yale: Yale University Press.

EXCERPT
1. It is an open secret that the hardware in our smart devices contains not only plastics but also conflict minerals such as tungsten, tin, tantalum, silver and gold.

2. Heinz Lackinger is a pottery crafter in rural Austria who works with prehistoric techniques of firing clay in an open wood fire.

3. Feminist hacking as a methodology implies an unorthodox approach to electronics - queering, questioning and deconstructing biased tech culture.

HARBORS

pp. 212 *Vincent Guimas*

[1] European Institute of Innovation and Technology. "homepage". Accessed January 6, 2024. https://eit.europa.eu/.

[2] Climate-KIC. "homepage". Accessed January 6, 2024. https://www.climate-kic.org/

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[15] Bleus paillettes NPO. "homepage". Accessed January 6, 2024. https://bleuspaillettes.com/

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EXCERPT
1. Access to the riverbanks is once again possible, allowing new experiments and open research to be undertaken by bringing together a wide range of expertise, providing a favourable framework for citizen and participatory science.

2. For HARBORS, design is conceived as the ability of creators to sew together Culture and Nature in an inspiring and very local way.

3. The workshop is at the heart of the HARBORS approach. It is the parliament of the hand, a space for learning and democracy in the service of commitment and inclusion.

The World as a Museum of Colonization

pp. 222 *Carolina Almeida, Marielle Sam-Wall, Stella Dikmans*

[1] Tuck, Eva and K. Wayne Yang. 2012. "Decolonization is not a metaphor." Decolonization: Indigeneity, Education & Society 1, no. 1: 1-40. https://doi.org/10.25058/20112742.n38.04.

[2] Escobar, Artur. 2018. Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds. Duke University Press. http://www.jstor.org/stable/j.ctv11smgs6.

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https://www.cbc.ca/news/canada/british-columbia/stó-lō-nation-[1]residential-schools-missing-children-unmarked-burials-1.6974053.

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EXCERPT
1. The world is a Museum of Colonization - you just don’t see it. All around us, in our classes, books, and built environment lay unquestioned narratives centering European perspectives. With Europe’s colonization of nearly 80% of the globe, an exclusive Eurocentric history has been elevated to a singular truth. The Museum of Colonization (MOC) exists to challenge this “truth“ and exposes it as the singular “story” that it is.

2. BIPoC storytellers have long been missing from the design industry, their stories and knowledge unclaimed or absent so their ideas are co-opted into designs that fit colonial narratives. This leaves out the depth and historical perspectives that, through collaboration and equitable access, could truly contribute to sustainable change.

3. The use of comedy in MOC’s work serves a similar purpose, along with challenging colonialism, we hope to aid others to see decolonization work not as a burdensome task but as a fulfilling one that expands worldviews.

4. With our use of the term [museum], we propose the existence of a third type of museum: the realities we inhabit.

5. Storytelling is a powerful tool for breaking free from the confines of linear, singular narratives of the past, present, and future.

6. By participating and MOC-ing the past together, we created a space for people to imagine alternative futures and bring them forth together.

Chapter 04

Living with worlds: Ecologies of practice and kinship

Unveiling the Stigmas around Mental Health that Are Living in Our Data

pp. 240 *Alex Johnstone and Pau Aleikum*

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EXCERPT
1. It’s important to recognise that popular culture significantly shapes these biases that are inherent in AI systems.

2. We prompted an image generator to produce typical scenes from daily life, with and without the presence of mental disorders, for example, a woman in a party with depression, or a teacher with schizophrenia giving a class.

3. We often focus on how AI is trained on biased data, but rarely ponder on how these systems train us, shaping our decision-making processes.

“Rain” Watchers

pp. 244 *littlefishtino: Tino/Tianao Yu*

1. Nature is everywhere, and it’s always moving. By just being there, taking time to take a rest, surprises always come.

2. When you enter the space, or just think about it, time becomes raining, after the rain and waiting for the rain.

3. Maybe now you know you can watch the rain, will you try to smell the soil, or listen to the leaves? In the moment of now, we are nature.

Responsive Open Source Modular Housing Prototype | #ROSHOP

pp. 252 *Vuga William, Ira Emmanuel, Gama Richard, Gilbert Charles, Doreen Bazio, Timm Wille, Richard Maliamungu, Stephen Kovats, Peter Treuheit*

1. The housing prototype became a fusion of architecture and media.

2. Replicating this initiative in other areas holds the promise of transforming lives and fostering empowerment in communities facing similar challenges.

3. It is possible to take small action locally, with limited resources, and still have considerable impact on the climate fight.

Distributed Food Factory

pp. 258 *Massimo Bianchini, Lorenzo Silvestri, Luca Grosso, Laura Cipriani, and Stefano Maffei*

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EXCERPTS
1. www.polifactory.polimi.it

Nyári, the Summer Kitchen

pp. 266 *Veronika Róza Háló, Evelin Murczin*

1. ‘Nyári’, an experimental building, open-covered space, based on the summer kitchens and smokehouses from the 19th century, which besides cooking were the centre of community life.

2. 'Nyári' is an experimental reinterpretation of the smokehouses from the 19th century, designed to meet the needs of modern society.

3. ‘Nyári’, an experimental summer kitchen that aims to connect generations and build communities through a mindful approach to spending time in nature and socialising while preparing and sharing meals.

SalvageGarden Assistive Makerspace

pp. 274 *Saad Chinoy, Jang LeongChia*

1. Expensive, limited assistive tech? SalvageGarden champions open-source, local fabrication for affordable, personalized solutions.

2. SalvageGarden escapes 'one-off' charity, creating a recurring, inclusive space for hands-on problem-solving with persons with disabilities and their caregivers.

3. Openness and collaboration are key. SalvageGarden welcomes diverse voices through co-creation and iterative development in an accessible makerspace.

Designing Health

pp. 278 *Alexandra Antih Strelcova*

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Fostering Symbiosis in the Eusocial Realm

pp. 288 *Asya Ilgün and Thomas Schmickl, Kostadin Angelov*

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EXCERPT
1. How can we reconstruct nonhuman habitats and improve interspecies interactions?

2. This shift in habitat raises considerations about animal welfare ethics, human-honeybee coevolution, and the role of design practice in this process, i.e. either aiding in promoting a healthy and mutualistic co-existence with these insects or exploiting them as farming equipment.

3. Biohybrid architectural systems include micro-ecosystems, which are smaller and more carefully defined networks of organisms that exchange energy and nutrients.

4: Like musical composition, biohybrid design activities have constraints and compositional elements. One or more melodies—organisms or abiotic factors—follow their own nonlinear trajectory at different speeds while interacting and overlapping.

5. This investigation is about more than just supporting honeybee survival and health; it is about redefining our relationship with the living environment, our socio-cultural context and recognising the interconnectivity of all living species.

6: Our goal is to provide this content to encourage the readers to try adapting their ideas and potentially employ regenerative making practices in their own regions, bringing this beehive concept to best practice communities where more ecosystem impact can be studied.

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OPENDOT

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Distributed Design

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Driving Design is the sixth of seven publications from the Distributed Design Platform. Established in 2017 and co-funded by the European Union, the Distributed Design Platform brings together Fab Labs, Makerspaces, cultural organizations, universities, and design centers from around the globe.

Driving Design is a non-exhaustive collection of articles, reviews, and profiles that represents and highlights the motivations, opportunities and challenges that drive the practitioners and the field of Distributed Design.

The book curates a collection of works under five umbrella themes, each of which offers the space for the Distributed Design community to share their vision, approaches and areas of exploration to answer who and what are the drivers of Distributed Design.

The chapters explore Commoning approaches to combat the scarcity myth: Designing with abundance; From prototypes to possibilities: Democratising design through learning; Living with worlds: Ecologies of practice and kinship; From heartland to healing: Designs cultivating rejuvenation.

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